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The Commanding Fact in Fishing

Page 5

PACIFIC FISHERMAN

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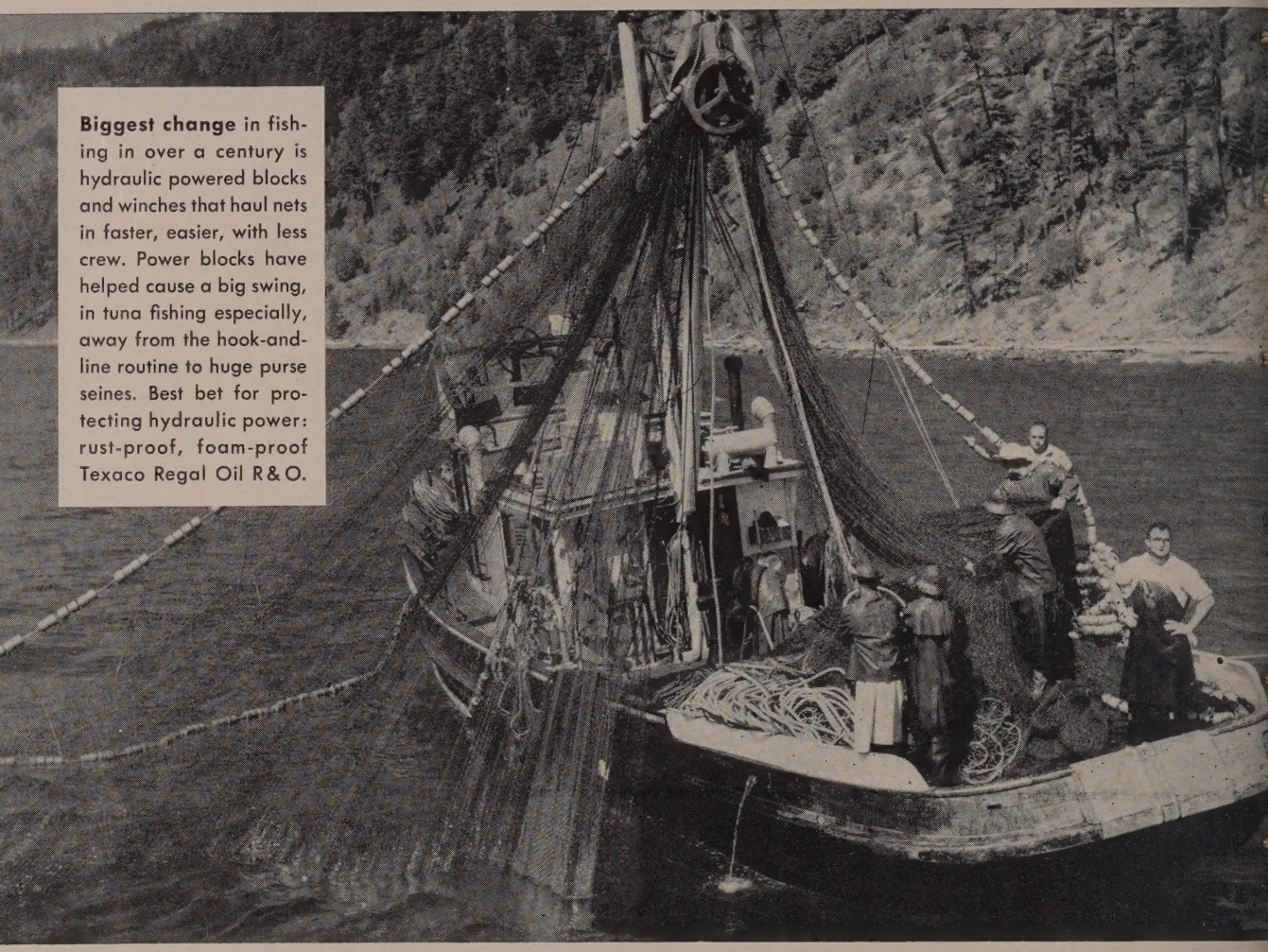
IN THE AQUARIUM OF THE SEA—
Oceanic Skipjack photographed in their natural habitat from an underwater observation chamber on the U. S. Fisheries Research Vessel "C. H. Gilbert."—See Page 8.



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Our Fifty-Eighth Year— **JULY 1960** **Vol. 58 No. 8**

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King Crabs and Halibut Share Bering Spotlight with Salmon

● King crab and halibut continued to share with salmon the Bering Sea spotlight to the first of July.

Japanese and Soviet Russian fleets were trawling on banks where Americans and Canadians operate for halibut under the oldest of international fishery conservation treaties.

Tanglenets of the U.S.S.R. and Japanese crab fishing operations were set heavily on the grounds, the Japanese having mounted a second King crab expedition this year, while the Soviets entered this fishery in eastern Bering Sea for the first time. The Japanese also were interested in herring and the possibilities of fishing them with a mid-water trawl.

American crab fishing vessels, which normally fish with trawls in Bering Sea, were seriously handicapped in their operations by the presence of the miles upon miles of anchored gear, which makes trawling impossible. There were numerous rumors of friction, but detailed reports were lacking.

At time of writing the American and Canadian halibut vessels fishing south of the Aleutians and the Alaska Peninsula had not reported sighting Soviet vessels in those waters, where several were encountered in 1959.

● So much for known facts.

Beyond this, little information was available as to what went on from False Pass to Attu. The Japanese more than ever before kept their catch figures to themselves. Their high seas salmon fleets were at sea, but unaccountably were sending no information.

American research vessels continued to catch Red salmon over a wide area of sea, but they in turn weren't being specific as to where and how many.

The Russians? They just weren't talking.

● So the intense competition of four nations fishing in eastern Bering Sea off the Alaska Coast becomes more tense.

BCF Appoints Gharrett N.E. Regional Director

John T. Gharrett, regional director of the U. S. Bureau of Commercial Fisheries in Alaska, in July becomes director of the New England Region, with headquarters in Gloucester, Mass.

He succeeds Joseph F. Puncochar, who resigned to become director of research for the Maine Sardine Council.

Mr. Gharrett joined the B.C.F. in Alaska in 1955, serving as assistant regional director for administration, and subsequently as director. Prior to 1955 he had been research coordinator of the Pacific Marine Fisheries Commission, and has served on the biological staffs of the Oregon Fish Commission and the International Pacific Halibut Commission.

At presstime no announcement had been made as to the identity of Mr. Gharrett's successor at Juneau, but there was some reason to expect that Harry L. Rietze, present assistant director for coordination, would be advanced to the post of regional director.

Fraser River Sockeyes Arrive on Schedule

Back on schedule for the first time in three years, the Early Stuart race of the Fraser River Sockeye population was in the river when fishing opened just before the end of June.

Approximately 1,800 fish were taken by Canadian gillnetters in the river in the first day's operation.

In recent years the Sockeye races composing the Fraser run have been disturbingly late in arriving, imposing a special problem upon the Salmon Commission's staff, which is charged with securing adequate escapement for rebuilding the runs, and also with the task of dividing the permissible catch as equally as possible between the fishermen of Canada and the United States.

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The New Bedford scalloper, "Laura A," now works the Georges Bank with trips running five or six days. The average trip for a scalloper in this service is 10 days. The reason for "Laura A's" better record is a major renovation which included the replacement of her old 320-hp diesel with a new 550-hp unit. To transmit this higher power dependably, she has a new 5-inch diameter by 10′ 11″ Tobin Bronze Shaft.

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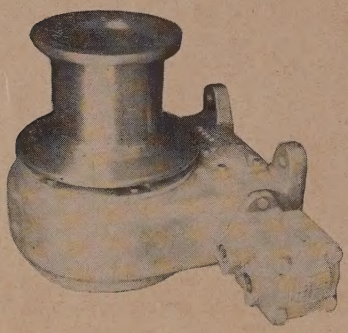
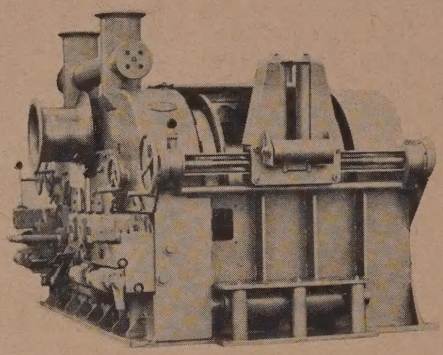


MARCO Hydraulic Cork Line Winch



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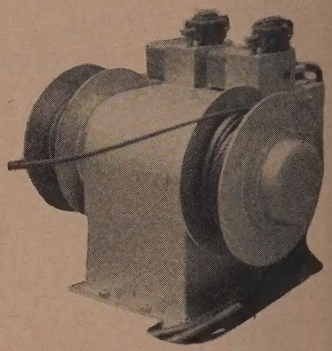
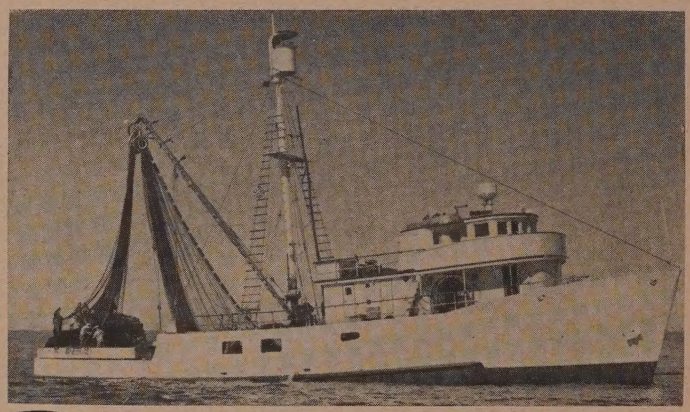


MARCO Hydraulic Brailing Winch



MARCO Equipped Tuna Seiner Using Puretic Power Block, MARCO Hydraulic Boom Topping, Vanging, and Cork Line Winches.

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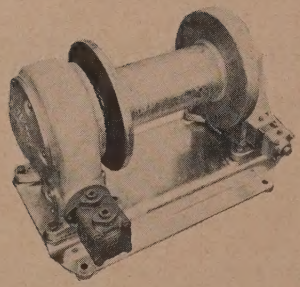
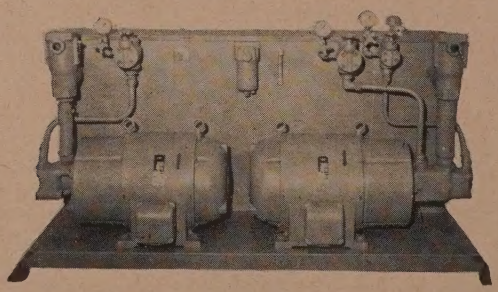


MARCO Hydraulic Boom Topping Winch



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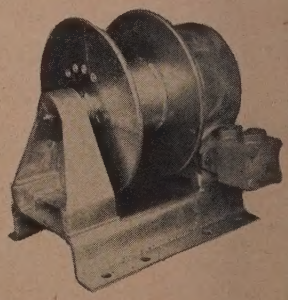

MARCO Hydraulic Vanging Winch

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PACIFIC FISHERMAN July, 1960

The Commanding Fact in U.S. Fisheries Today

Profile of Success—the converted tuna seiner "Cabrillo" in Puerto Rico, ready to discharge a capacity cargo of tuna. So heavily was she laden that she removed her turntable, net and skiff at the Panama Canal before venturing to cross the Caribbean. This was her third full load in three months.

● Commanding fact in American fisheries today is the revolution in tuna fishing.

The United States' richest fishery is shifting its method of primary production, and the shift brings with it a rush of business in boat conversions, nets, floats, cordage and machinery.

Where formerly most of the tuna was caught by clippers fishing with live bait, today leadership has passed to giant purse seiners fishing nylon nets.

More significant than the seiners' attainment of tonnage leadership is their profitability. Capacity trips at the rate of one a month have become commonplace. Where a clipper was counted fortunate to make four trips a year, and five was phenomenal, some seiners had delivered five full loads in 1960 to the end of May.

● Where do these seiners come from?

Thus far from the ranks of the clippers, modified and converted to seining—and always in a rush, always with frantic speed.

New ones? Ah, yes—they are coming. One keel is ready to be laid in the Pacific Northwest, and there is talk of four more—vessels whose cost will run far above that of any American tuna clipper, because they will represent new standards of equipment, and especially of refrigeration.

● What has been responsible for this revolution which has carried the seiner into leadership after years of eclipse?

Some factors are readily evident:

1. The Puretic power block, which makes it possible to handle seines big enough to catch tuna off-shore and in such quantities; and to handle them fast enough.

2. Synthetic fibers which can make seines strong enough to meet these staggering demands, and big enough without being unmanageable even for a power block.

3. Fast, powerful purse winches, sometimes with the net-handling function separated from the pursing unit.

4. Aerial scouting, with longer-range, shore-based planes.

5. Development of that intangible something called "know-how," which is the accumulated experience of intelligent fishermen applied aggressively to achieve new peaks of productivity.

● The revolution is bringing prosperity to the tuna fishermen again, as well as to the boat yards and netting manufacturers.

The tuna fishermen are finding in it their own answer to the problems which beset them only months ago; and

for which the government of the United States could produce no solution which they considered satisfactory.

And are the problems all solved?

By no means. The very effectiveness of modern tuna purse seining has created new ones; rather it has made old ones more serious.

Of these the greatest, most demanding is that of refrigeration. The system which was entirely adequate to receive and protect tuna as fast as a crew could catch them one by one with hook and line may not be able to handle them as fast as they can be brailed from a net, tons upon tons upon tons.

Brailing itself is a choke-point, and as its limitations are overcome the demand upon refrigeration will increase.

How to chill tuna as fast as a seiner can catch them becomes the seiners' big problem.

No longer is it how to catch fish fast enough to make fishing pay. Now it is how to chill the fish fast enough to save for sale all that can be caught.

Here's a new challenge for the technique of applying cold—perhaps aided by antibiotics—to the protection of perishable food.

● Today's revolution in tuna fishing proves anew that there is no end to opportunity.

Purse seining tuna, which all but disappeared before the rush of the clippers in the late Twenties, the Thirties, the Forties and early Fifties, comes again to dominance under the focused stimulus of chemical fibers, mechanical power blocks, aeronautics, and Man's necessity.

Albacore Found Over Wide Area, But Far to Sea From California

● Albacore was sighted in offshore California waters last month, but as this magazine went to press no significant quantities had been caught.

According to reports from the California Fish & Game Department's research vessel *Schofield,* the fish are ranging far offshore. Some ocean disturbance appeared to be keeping them from coming shoreward, and most of the fish seem to be at least 250 miles offshore, which is a long run for most Albacore boats.

Fish & Game experts predicted the fish would range farther south this year than last, basing their forecast on the presence of cooler waters. This prophecy seemed to be borne out by the *Schofield's* experience on a 26-day cruise during which she surveyed a considerable area ranging as far as 500-600 miles offshore.

The *Schofield* made first contact with the Albacore on June 4 about 600 miles off San Francisco, and saw fish every day of her cruise thereafter. Her last catch was made about the latitude of Ensenada, but still well offshore.

This year's record so far is no worse than 1959's, for up to mid-June last year, virtually no Albacore had been landed in California.

Bluefin Run Spotty

● The Bluefin run, which was expected to develop about this time this year, failed to materialize to presstime in exciting proportions. Some Bluefin were running for a few days in mid-June, but rough weather prevented all but the biggest boats from going after them. This was regrettable, for the vessels that most needed the fish—the mackerel fleet, which has been tied up since April for lack of canners' orders—got the least benefit of what run there was.

One "regular" (unconverted) purse-seiner, the *New Sea Rover,* made an almost miraculous two-day trip, bringing in a full fare. The *New Sea Rover* isn't the biggest vessel in the fleet, but a two-day trip represents a good profit regardless of the size of the boat. She is based in San Pedro, and her skipper is Barney Marinkovich.

Average 30 Tons/Day

● Down off Peru, the converted steel seiner *Sun Jason,* fishing for Westgate-California Co., loaded up not only her own hold but also the transport ships *Missouri* and *Westport,* all in one trip of less than 30 days. Total tonnage of the three vessels is somewhere in the vicinity of 900 tons, which means that the *Jason* was able to catch an average of 30 tons a day for a month. Jack Borcich is skipper of the *Jason,* which is at this writing in drydock in San Diego, but normally is based in Paita, Peru.

1960 Catch Passes 1959

● In total domestic tuna landings, the tonnage landed in southern California between January 1 and June 11, 1960, was ahead of landings for the same period last year. 'Sixty passed 'Fifty-Nine early in June, mainly on the work of the converted seiners, which are leading the tonnage race.

This year up to June 11, according to the Market News Service of the Bureau of Commercial Fisheries, the converted vessels had landed 21,166 tons of tuna as against 20,253 tons for the "regular" seiners and 19,516 tons for the clipper fleet.

By way of contrast, last year the corresponding figures were 3,218 tons for the conversions, 17,822 for regular seiners and 34,822 for bait boats.

The reason, of course, is that the converted seiners are not only bigger boats, but are becoming more numerous every day as clippers are changed over. The *Pacific Fisherman* list of conversions published in the June issue numbered 57 conversions completed or under way. At about mid-June there were possibly eight or 10 boats under conversion not listed in the magazine, and definite plans had been made to convert two or three others that were still fishing with hook and line when this issue went to press.

Landings Mostly Yellowfin

● As usual this time of year, Yellowfin dominated the tuna catches. The week of June 5 to 11, California canneries, according to the Market News Service, received 3,745 tons of domestic-caught Yellowfin as against 517 tons of Skipjack, 16 tons of Bluefin and no Albacore. Including imports, the totals for the year to June 11 are 69,804 tons of Yellowfin and 14,731 tons of Skipjack.

Transshipments and imports were both down from corresponding totals last year. Transshipments for Jan. 1 to June 11, 1960 were 2,662 tons, imports 33,841 (Market News Service figures). In 1959 the corresponding figures were 5,450 tons transshipped, 38,152 tons imported.

Prices remained stable at around $250 per ton for Yellowfin, $210 for Skipjack and $240 for Bluefin.

1960 North Pacific Fishing Drama Has Absorbing Plot

• When the opening of the Bristol Bay Red salmon season raised the curtain on the 1960 drama of the North Pacific fisheries June 27 it was before a world audience breathless with interest.

There were new elements this year in the drama's always absorbing plot.

• There was the test of the scientist's prediction of a *big* run, the best in many years.

• Alaska was in full control of the fisheries for the first time under statehood.

• The Japanese were fishing far to Westward, but keeping the location of their activities closely secret. Would their nets cut deeply into the maturing salmon bound for Alaska, as in 1956 and 1957; or would their exploitation of the east-bound migrants be reasonably light, as in 1958 and 1959?

• A Soviet fleet of cannery ships and tangle-net boats was fishing King crab at the approaches to Bristol Bay in the late spring. Would it switch to salmon gear in the same area when the Reds came?

• Granted that the Red salmon should come in the volume the scientists expected, would the amount of gear and cannery facilities ready on Bristol Bay be sufficient to catch and pack a reasonable proportion of such a run?

• Would the Alaska authorities extend the fishing time sufficiently to permit the fishermen and packers to utilize the allowable surplus of the run beyond the optimum spawning requirement?

• Prior to the opening of the Bristol Bay Red salmon fishing season there were several indications that the Fisheries Research Institute forecast might prove accurate.

Vague reports from Japan, admittedly neither official nor confirmed, said the high seas gillnetters of that nation had found remarkably good early fishing.

American research vessels encountered mature Reds far to sea in numbers far exceeding their previous experience.

Early fishing reports from False Pass and the Shumagin Islands, and observations in the vicinity of Kodiak Island lent credence to the belief that there were many mature Red salmon on the move; and presumably to Bristol Bay.

•

• A new element of international politics appeared in the Bristol Bay offing this summer.

A King crab fleet of the U.S.S.R., quite distinct from the trawling fleet which has been working further north for more than a year, appeared on the banks just above the Alaska Peninsula in May. With minor conversion in fishing gear and cannery equipment, it could switch to salmon, fishing of course outside the 12-mile limit espoused by the Soviet Union at Geneva.

This would be an interesting sequel to the Soviet crabbing expedition's earlier achievement. Soon after its appearance on the Bering Sea banks the Japanese government permitted a second Japanese expedition to exploit the King crab population of eastern Bering Sea. Prior to the Soviet advent, Japanese exploitation in the interest of conservation had been held to a single operation, sharing the resources with the Americans.

F. E. Booth Sale to Taiyo Believed Near Certainty

After some weeks of negotiation, advices from Japan in June indicated that purchase of the F. E. Booth Co. of California by Taiyo Gyogyo K.K. of Japan, through its subsidiary Taiyo-California Co., was a virtual certainty.

This confidence regarding the deal followed reported approval by the Japanese government of the proposed transaction. Purchase price was reported as approximating $800,000.

Principal Booth properties, beside its long-established *"Booth's Crescent"* brand are believed to be the tuna cannery in San Francisco, real estate at Pittsburg, Calif., and south of San Francisco, as well as a station in the Los Angeles area.

The F. E. Booth Co. is generally regarded as the oldest California sardine canner, and at one time was a leading factor in that industry.

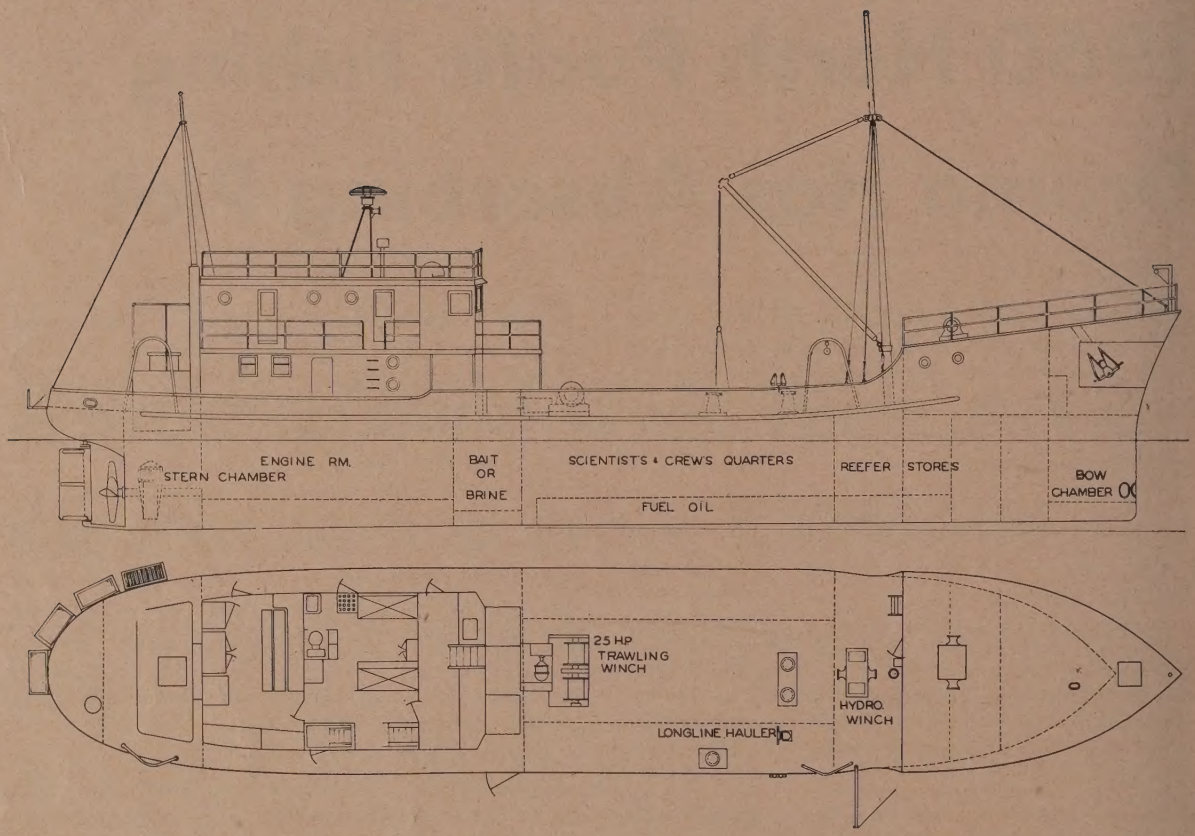
Reports from Japan say Taiyo is interested in acquiring the Booth properties and label "for canning tuna imported from Japanese sources in various areas and to be sold in the United States under the well-established brand of the American company; and perhaps also some salmon bought in the coastal fisheries of Alaska."

Chilean Earthquake Wave Destructive in Japan

Preliminary estimates of damage in Japan from the tidal waves induced by earthquakes in Chile reach Y 11 billion, of which the loss to oyster culture and other aquiculture in the Mayagi Prefecture—whence comes most of the oyster seed exported to the United States—was the largest single item.

Fishing vessels to the number of 5,400 were reported destroyed and 122 fishing ports damaged.

Loss of life in Japan was 107, with 86 additional missing.



Research Vessel is Fitted For Underwater Observation of Fish

By
Albert K. Akana Jr.
Herbert J. Mann
Robert E. K. D. Lee

● *Charles H. Gilbert,* U. S. Bureau of Commercial Fisheries research vessel attached to the Honolulu Biological Laboratory (HBL), has recently undergone extensive alterations which make her one of the most modern and versatile vessels of her class. The modifications to the vessel, including startling innovations such as an underwater bow chamber for observing fish and a bulbous bow, were accomplished at Gunderson Bros. Engineering Corp. of Portland, Ore., under the direction of L. C. Norgaard and Associates of San Francisco.

Built in April, 1952, by the Tacoma Boatbuilding Co., Inc., Tacoma, Wash. the *Gilbert* has now had two major alterations. The vessel's over-all length was 84'2" until January, 1954, when a 28' parallel hull section was added at Colberg Boat Works of Stockton, Calif., increasing over-all length to 112'2".

NOTE—Authors are members of the staff of the Honolulu Biological Laboratory, U. S. Bureau of Commercial Fisheries, Honolulu, Hawaii. Mr. Akana is marine superintendent; Mr. Mann is fishery methods and equipment specialist; and Mr. Lee is port captain. **This article is published by Pacific Fisherman with the permission of the Director, U. S. Bureau of Commercial Fisheries.**

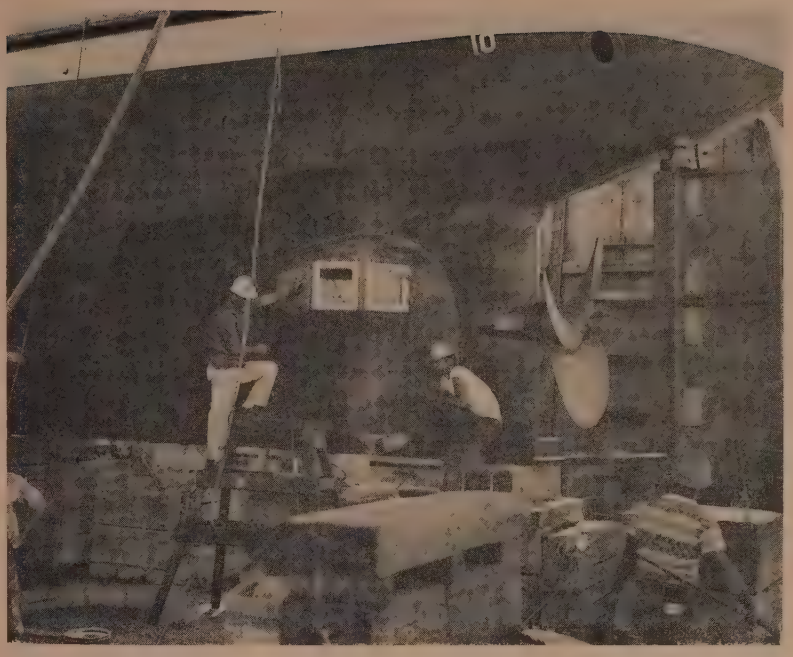
In June, 1959, an underwater viewing chamber was installed at the port quarter, forward of the propeller and directly beneath the fishing racks. This installation, made at the shipyard of the Hawaiian Dredging and Construction Co., Honolulu, followed extensive investigations by HBL staff members of various means for accomplishing underwater observations, including overside ladders and caissons. Excessive turbulence, which hindered the observer's vision, and the cumbersome handling of the equipment were the principal drawbacks of these early installations. The chamber, comfortably accommodating one person, has two glass ports for direct observation of tuna behavior during fishing operations.

Advanced Features of the "New" Gilbert

● Several outstanding and advanced features were incorporated in the "new" *Gilbert* during the second major alteration at the shipyard of the Gunderson Bros. during the period November 24, 1959, to March 17, 1960.

As a result of the success of the stern underwater viewing chamber, and to meet the increasing needs of marine biologists in the study of fish behavior, an underwater observation chamber was installed in the vessel's new bow. The original bow was cut away and a new "streamlined" bulbous bow was added. The "bulb" comfortably accommodates a single observer who is able to take notes, movies or photographs of fish action through three 1"x12"x18" oval tempered glass ports which are installed forward, port and starboard 6' below the waterline. Access to the chamber is from a watertight hatch forward of a watertight bulkhead designed to prevent flooding in case of an accident. It is noteworthy that the *Gilbert* is perhaps the first fishery research vessel to be fitted with a bulbous bow and fore and aft underwater observation chambers. It is anticipated that this new approach to research will bring about better knowledge of tuna behavior which may improve or introduce new fishing methods and techniques to increase the efficiency of capturing tuna.

Other alterations include new, air-conditioned, midship quarters; new pilot house with a steering console using Sperry hydraulic system and a new propulsion engine. The vessel is now repowered with a new Caterpillar D397 (Series D) turbocharged marine diesel engine which developed 500 hp. at 1200 rpm. during trials. The new engine is fitted with hydraulically operated 3.79:1 reverse and reduction gears which drive a Coolidge 74½" diameter x 45" pitch 3-bladed, bronze propeller. Engine starting is accomplished by an American Bosch starting system. During a test made over a measured mile, 10.8 knots was maintained at 1100 rpm. with the vessel in a fully loaded condition.



Observation blister on the **Charles H. Gilbert's** hull, permitting underwater observation of tuna behavior while they are being fished from the racks immediately above.

Bulbous bow and forward observation ports provided by modifications of the hull of the research vessel Charles H. Gilbert.

The ship's hold, formerly a stowage area for gear and equipment, was divided into three staterooms; two rooms for use by scientific personnel, each containing two built-in berths, a desk, chair and lavatory and a crew's quarters with six berths and a lavatory. Below deck covering is of vinyl tile.

To equip the vessel for operations in tropical waters, an air-conditioning unit has been installed to serve the hold quarters. This unit is a Delco OU-30A with output capacity of 30,500 BTR/HR. The air supply is led by ducts to adjustable outlets in each of the rooms.

In addition to berthing accommodations in the hold, there are four berths in the main deck quarters and two in the captain's stateroom on the bridge deck. This stateroom is equipped with a desk, chair and lavatory.

The bridge deck house was enlarged aft to provide a room which serves as a library, conference room and dry laboratory. The wheelhouse was extended forward to accommodate a control console which is equipped with a Sperry magnetic compass pilot,

Sperry hydraulic steering and Westinghouse controls for the main engine. The flying bridge is also equipped with a control console of similar arrangement. Steering is accomplished by levers.

Other Distinguishing Features

● The vessel is equipped with Sperry rudder indicators, loran and rdf. RCA radar, three transmitters and receiver sets, two fathometers, one of which is capable of recording depth to 6,000 fathoms, a double drum winch for midwater trawling, a longline hauler, a 15-hp. plankton and hydrographic winch, a 7.5-hp. hydraulic powered BT winch and a bait tank aft which was converted into a portable unit.

After completion of the alteration work at the shipyard, the *Gilbert* departed Portland, Ore., on March 18 on a shakedown cruise to San Pedro. Following adjustments to gear and equipment in San Pedro, the vessel departed for a 2-month cruise along the west coast of Mexico and Central America with a complement of 11 crewmen and 4 scientific personnel. She returned to Honolulu, her homeport, on May 23, 1960.

All modifications have proved to be outstandingly successful; those that improve her qualities as a research tool, those that improve vessel operation and those that improve living accommodations. As she now exists, the *Gilbert* is the most modern, versatile research vessel of her class. No additional major modifications are planned.

How Do Tuna Fishermen Find Fish?

. . . Mostly by Looking For Them

● Visual spotting is still the basic means by which most vessels contact the schools, but —

In recent years aircraft have come to play an increasingly important part in putting the boats on the fish. Thus fishermen today look for fish not only from the crowsnest but also from the cabin of a searching land-based airplane.

Aerial spotting service is now available all the way from San Pedro to around Acapulco, Mexico. The service is rendered by land-based small planes, mostly Piper Cubs, which are single-motor short-range planes and have to stick fairly close to shore. So although airplane spotting is very valuable within a certain range, the planes do not range as far out at sea as the fishing vessels do themselves. (A twin-engine job is on order for this work.)

Fish spotting is a specialized occupation, and the successful fish-finding flyer is a well-trained man. The best pilots can not only tell where a school is, but can make fairly accurate estimates of how many tons of fish there are in the school.

It's Done by Radio

● The method of operation is basically simple. The airplane pilot patrols his territory, and when he spots a school of fish he radiophones the vessels cruising in his vicinity. When a skipper comes into the conversation and agrees to work with the pilot, the pilot guides him to the near vicinity of the fish. When the catch is made, the skipper pays the pilot the agreed amount, usually 5% of gross catch.

At present there is no co-operative agreement between any group of boat owners and any group or individual pilot. Agreements are made individually, either before the boat clears on her fishing trip, or when she is already on the ground.

The Fishermen's Co-Operative Association of San Pedro at one time acted as liaison between pilots and boat owners in setting equitable rates of compensation for the pilots; but there is not now in force any group agreement for air service.

There was at one time an agreement made between a pilot and a fishermen's union, but this lasted only a short time.

Little Birds Tell Them

● The ocean, of course, is a big place, and the airplane pilot may be able to guide the vessel only so close to the actual location of the school, which is comparatively a pin-point in the vast expanse of water.

To find the exact spot where the fish are, the skipper makes use of birds more than any other single evidence. Tuna fishermen recognize two kinds of fish—bird fish and porpoise fish. Schools of tuna are usually accompanied either by flocks of birds in the air above them or by schools of porpoise frolicking in the water with them.

Once a vessel is in the vicinity of a school of fish, he can make close contact with the school by following the birds or the porpoises.

Getting rid of the porpoises without killing them needlessly is often a great problem with conscientious skippers. Many skippers have strong feelings about killing porpoises, and go to great lengths to avoid catching them in their nets or, having caught them, they often show great skill and patience in trying to ease them out again—an almost impossible feat, because a porpoise hasn't sense enough to jump over the edge of a net even when it easily could do so.

Birds are trustworthy signs of fish, and experienced skippers train themselves to the point of being able to read bird signs quite accurately. Big birds usually mean big fish, but the rule is not as simple to follow as that.

Electronics? Not Yet

● Electrical or electronic methods of fish finding are being studied, but so far have not reached the point of perfection where they can be used safely —at least to find distant schools.

It is of course well known that fish tend to gather in larger numbers around sea mounts or underwater shoals than in deep open waters. Many of the sea mounts are well known to tuna fishermen who have fished near them for many years.

In this connection, depth charts prepared by the US Coast Guard are useful. Many of the charts of the waters where tuna are mostly found are now classified, but the Coast Guard and Navy have announced their intention of de-classifying some charts, which will then become available to tuna fishermen as a guide to the topography of the ocean bottom.

Air services, besides being useful, are available. At this writing there are about three planes operating in the San Pedro area, serving the fishermen who seek local fish. There are also about eight planes operating from Mexican ports, joined in a single organization which has an affiliation with Mexican cannery firms, but also serves US vessels fishing lawfully in those waters.

Norway's 12-mile Action Starts No Stampede; 54-Nation Proposal Withers

● Although Norway moved immediately to extend its authority over fisheries to 12 miles beyond its point-to-point baselines (where a 4-mile limit previously had ruled), June drew to a close without other nations showing a tendency to be stampeded by failure of the Geneva Law of the Sea conference to take action.

The proposal for the 54 nations which voted in favor of the Canadian-American compromise proposal to undertake such an agreement on their own appeared to have withered for lack of nutrient interest and under close scrutiny in the light of day.

Feeling in the United States fishing industry generally appears to run along these lines:

1. The United States is now in position to continue its advocacy of the narrow territorial sea from the security point of view.

2. This should be separated from fishery problems in any further conferences which may be held on these questions.

3. Efforts to settle the world's fishery problems by general formula should be abandoned.

4. Where conservation calls for international action it should be considered in negotiations limited to the countries specifically involved.

5. Considerable delay in facing realistically some specific problems existing between the United States and Canada may impair the chances of arriving at the most effective and harmonious solutions.

● Opinion in Congress appears similarly inclined; and the Department of State is said to have assured congressional leaders in June that it was not disposed to undertake general commitments, while at the same time continuing to consider some limited problems with definite relation to conservation on the high seas.

Canadian expression indicated continued advocacy of a 12-mile limit for fisheries jurisdiction in the hands of the coastal country. Although not an official statement, The Bulletin of the Fisheries Council of Canada in its June 13 issue comments: "It would seem to be only a matter of time before 12 miles becomes the internationally-accepted measure for fishing limits."

● Norway justified its extension of fisheries jurisdiction to 12 miles from its already forward base line in these words from the official comment:

"This move is designed to provide better protection for coastal fishermen against the damage to fixed gear wrought by foreign trawlers year after year, and thus assure the livelihood of Norwegian fishermen in the future."

The Norwegian government expressed its willingness to negotiate "with other countries on reasonable transition arrangements. Whether such negotiations should be conducted on a bilateral basis with individual foreign countries, or multilaterally with a group of countries has not been decided as yet."

Fish Forces Consolidate Position on Snake Dams

● Industry position in the controversy over high power dams in Hell's Canyon of the Snake River was reaffirmed and clarified at a "prehearing conference" held before a Federal Power Commission examiner in Portland June 15.

Purpose of the conference was to seek areas of agreement on which the two opponents and the intervenors could stipulate facts and thus reduce the burden of the several hearings set for late summer and through the fall.

In this it failed, for virtually no agreement appeared on points of fact, and notably so on issues of biological opinion. However, the intervenors, who include numerous industry groups and Pacific Northwest state agencies, proved more closely than ever united in their position, which could be briefed about like this:

1. Opposition to the construction of any dam in Hell's Canyon until positive means are found by which damage to migratory fish can be reduced to nominal levels.

2. If any such dam is to be built (and it appeared to be increasingly accepted that one is inevitable) then the High Mountain Sheep project is greatly to be preferred to that proposed for the Nez Perce location.

This preference of the fishing industry, sportsmen, Indian tribes and public agencies for the High Mountain Sheep location of the Pacific Northwest Power Co. rests on the fact that it would be located *above* the confluence of the Salmon River with the Snake. The Salmon River is the principal remaining spawning area for spring Chinook salmon and Steelheads, and the only one in the Snake River basin unimpeded by dams.

The Nez Perce location sought by the Washington Public Power Supply System is *below* the confluence of the Salmon and the Snake, would bar fish from access to the Salmon, and would flood a great stretch of the spawning areas on this "River of No Return."

Industry organizations represented among the intervenors include: Fishermen's Cooperative Association; Alaska Fishermen's Union; Northwest Fisheries Association; Columbia River Salmon and Tuna Packers Association; Association of Pacific Fisheries; Puget Sound Salmon Canners, Inc.

State agencies intervening in the case include: Washington Departments of Fisheries and of Game; Idaho Fish and Game Commission; Oregon Fish Commission and Game Commission; Alaska Department of Fish and Game.

Sportsmen's groups intervening include: Oregon Wildlife Federation; Pacific Fish Conservation League; Washington State Sportsmen's Council; Idaho Wildlife Federation.

Indian tribal organizations intervening are: Makah Indian Tribe; Chinook Tribes, Chinook Nation; Cowlitz Tribes of Indians.

Sanford to Morroco

E. T. "Ted" Sanford, for many years with F. E. Booth Co., Inc., San Francisco as products control manager, has gone to Agadir, Morroco, to complete the installation of the sardine canning and reduction plant that the late George Christo was making there for The Login Corp., when he was killed by an earthquake.

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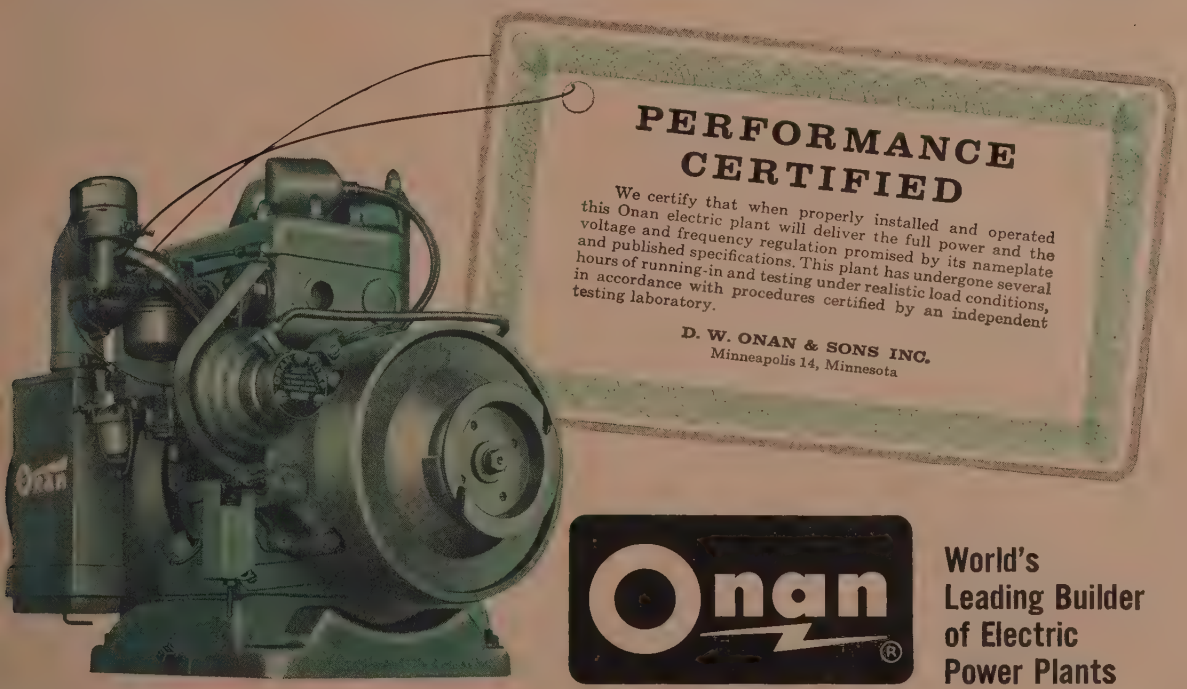
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MARIO PURETIC

He set into motion an industrial revolution

● Mario Puretic is a pleasant, mild man.

You would not count him as a man to start a revolution, but he *did*—an industrial revolution in one of Man's oldest crafts, fishing with nets.

As truly as Cyrus McCormick's reaper revolutionized farming by mechanizing the harvest of grain, so Mario Puretic's power block revolutionized much of Man's fishing, and the ferment of its success continues to leaven new areas of the whole loaf.

Men hauled their nets by hand on Galilee when Christ told them to make their set on the other side of he boat, and have done so ever since. Brave efforts to apply mechanics to this hard, slow work had scant success, failing in their monstrous complications.

Then a decade ago Mario Puretic, who had been fishing only a few years, applied power to a pulley, the pulley to fishing, and set the revolution to turning. It continues to turn.

Mario Puretic fishes no more, but his interest is close to fishermen and their work in many parts of the world, and out of that interest, that constant observation, the analysis and working of that incisive mind, have come other inventions for easier, faster, more effective fishing through extension of the applications of the basic power block.

●"You must derive great satisfaction when you see fishing fleets throughout the world using your power block so successfully," an interviewer observes, and the Puretic reply comes back:

"True; but it is not *personal* gratification, and nothing of a feeling of triumph. Rather it warms a man's heart to feel that he has had a part in making fishermen's hard work easier — and more productive. Better shares from more fish in less time. And then you get to thinking about the work and wages men have had for years in building these blocks; the thousands of men working in boat yards up and down the Coast today, converting tuna clippers to seiners, and largely because these blocks and nylon nets have brought a whole new ocean of opportunity to purse seining.

"When you think of these things it warms your heart; and it keeps you humble."

● Mario Puretic became a fisherman only in 1945. "But I had lived on the coast and on the water in the old country as a boy. I knew the sea.

"In this country I worked in construction in the Middle West; and then got into small contracting. But I suffered there from hay fever and moved out to San Francisco. Having known the sea, although not as a fisherman, I got on the crew of a sardine seiner. That was my first fishing.

"Then I went to San Pedro and worked on tuna purse seiners; sometimes in the engineroom; sometimes in the fishing crew. And while I worked I thought about ways the heavy nets could be handled more easily, and *faster*, so we would lose fewer fish; and could make more sets."

The Puretic power block grew out of that thinking. (And, by the way, proper pronunciation of the name approximates *Poo-RET-ic.*)

● Singularly, the tuna and sardine seiners were slow to see the promise of the invention. They doubted its effectiveness. Too simple, perhaps.

Mario Puretic, a modern prophet without honor in his own country, looked north; and there he arranged with Peter G. Schmidt of Seattle to manufacture and distribute the power block. From that contact came success.

Thus Puget Sound and Alaska salmon seiners and British Columbia herring seiners were the first to use the power block; which found its initial use in tuna seining not in California but in Peru, where Capt. Larry Zuanich tried it first aboard his *Stranger*.

Mario Puretic generously credits *Pacific Fisherman* with a vital part in developing the world's knowledge of the power block.

"From the very first *Pacific Fisherman* sensed the possibilities of the block. The first article about it was published there. The first pictures of it were printed there," he recalls, and goes on:

"When we followed inquiries to Africa we found they had been stimulated by information in *Pacific Fisherman;* and so it has been all over the world."

● Today the Puretic power block is an essential element with the nylon net in the profound change sweeping the American tuna industry, a change which is turning deficits into profits and clippers into seiners. The block is hauling gillnets as well as seines, and is finding application in the fisheries of every continent, where men are catching more with less work, in less time and lower cost because of it.

The world will not give Mario Puretic place among the giants of invention; but in the fisheries—the field of his service—his contribution is profound.

Knowing him, you would not count him as a man to start a revolution—but he *did*.

PACIFIC Fisherman's NEWS

JULY 1960

Halibut Values Resist Usual Mid-Summer Lift As Seasons' Ends Near

● Halibut hadn't generated the expected lift to the end of June and, with the ends of the main seasons coming into view, prices were still dismally low from the point of view of the producers.

Dealers professed perplexity that the attractive prices quoted did not produce more volume. Freezer stocks showed increase to the end of June, but this was doubtless influenced by carryover in some degree.

The fresh trade was quite active, dealers reported, and this was another unexpected aspect of the business, reversing the trend of recent summers.

● Passing the solstice it was evident that Area 2 would remain open well beyond the 1959 closure July 8. Just how long wasn't certain, but the International Halibut Commission's eight-day advance notice did not seem to be immediately impending at press-time.

In Area 3A, on the other hand, the active fishing, concentration of big boats, and relatively favorable conditions made it altogether probable that closure would come somewhat in advance of last season's end August 1.

In 1958 fishing in Area 3A continued until August 31.

Area 2 season is expected to extend materially by the normal pull-out of boats for salmon fishing. This tendency becomes more pronounced as July advances.

Reasons for the slow progress in attaining the Area 2 quota this season are several, but none seem to be biologic. The fish appear to be normally abundant and available. Small catch results from reduced fleet effort in the area.

More of the "local" boats fished in Area 3A this season, perhaps attracted by the premium prices for large. Also there was a tendency on the part of some boats to forego halibut fishing this season, perhaps attracted by the high prices being paid for troll salmon.

Area 3A Fishing Excellent

● Area 3A yielded some heavy fishing this summer, with the top catch believed to be that of the *Silver Bounty*, which took 180,000 lbs. She discharged her deckload at Sand Point and then went on to Prince Rupert to sell the balance.

Of the big trips coming to Seattle, *Marconia's* 145,000 lbs. was the largest.

The rapidity with which the Area 3A quota was caught was due to such good fishing, and to the large fleet which it attracted. Furthermore, a major factor in production from this area, in the view of the Halibut Commission staff, was the marked effectiveness of octopus for bait.

The scientists rate octopus as making from 15 to 20% heavier catches per set than herring or other fish baits; and at this rate the Area 3A fishermen are using it enthusiastically in spite of the price of 25¢ per lb.

● Area 3B, running west from the Shumagin Islands and into Bering Sea, will remain open for fishing without

WHY GENEVA WAS LOST

"The Geneva conference was lost, as was the breadth of the territorial sea issue at the first Geneva conference, by misestimation on the part of the top management in respect of the effect of fishery problems around the world, not only on the final vote but upon the tactical maneuvering which led to that vote. This misestimation was compounded by their brusque ignoring of the advice of the skilled fishery professionals who were on hand."

This is the opinion of Dr. W. M. Chapman, director of the Tuna Industry's Resources Committee, who was present in Geneva throughout the Law of the Sea Conference as an official industry advisor to the American delegation.

Supreme Court Sustains Indian Salmon Traps

Fate of the Alaska salmon traps of the Metlakatla, Kake and Angoon Indian communities was returned to the Alaska courts late in June by the Supreme Court of the United States.

Along with the decision supporting the position of the Indians and the Department of the Interior went an order continuing in effect the Brennan rule of 1959 by which the traps to the number of 11 are permitted to operate.

Conditions under which the Alaska court now must decide the case were not available at time of writing.

Prime point at issue was the right of Alaska by its law forbidding salmon fishing by means of traps to apply this structure against traps owned by Indian tribes and operated under authority of the Secretary of the Interior from lands he has reserved to Indian use.

Dissenting from the Supreme Court's majority opinion were Justices Warren, Black and Douglas.

"Every time I pull a piston, I'm amazed how clean Mobil Marine Oil keeps my engine!"

says owner of the Mother Frances out of Boston

Sam Passanisi, owner of the Mother Frances, likes to claim that his 6-cylinder Atlas-Superior diesel is the "cleanest engine in the Boston Fleet!" Other Skippers sometimes give Sam an argument on that, but even they agree Mobil Marine Oils keep diesels amazingly *clean* and *trouble-free*.

When the Mother Frances is ready to take aboard its diesel fuel and lube oil, it doesn't have to look twice for service. The Neptune, one of two Mobil dealers' tankers in Boston, is right there beside it. "Those guys never sleep!" says Sam, of the crew of the sturdy little tanker.

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quota until October 15.

Production capacity will be somewhat less than last year, principally because the fleet's voluntary stay-in-port between trips will be applied through the extended season this year, while in 1959 vessels were not subject to lay-in after the close of Area 3A.

This condition, and the generally lower prices anticipated, are expected to bring the Area 3B catches to the major mainland ports to a greater degree than in 1959. Also, it is now known that much of the fall deliveries from Area 3B last year came from a hot spot discovered in the vicinity of Sanak. Productivity of such a heavily fished area is not often maintained at comparable level during a second season.

Dealers Are Puzzled

● Seattle dealers are frankly puzzled by the market's lack of interest in new frozen halibut even at the present attractive prices. Average prices in June ran about 3¢ under those of the previous year.

Some think it is because the trade got accustomed to such prices when they were produced last year as freezers cut their quotas to move their stocks of high-cost halibut.

Others think that competition may be the key, and report having received offers for Norwegian halibut in quantities up to 1.5 million lbs. at a price of 22½¢ per lb., Boston.

Tony Cruz, a fish handler and employee of the Catalina Fish Co., wholesale fresh and frozen fish dealers of San Pedro, died last month.

Globe-Trotting Engine Gives Light to Molat

A Lister English-made gasoline-powered 25-kw. electrical generator made its way from Britain through Los Angeles to Yugoslavia last month.

The generating unit was donated by John Krijakin, a native of Molat, Yugoslavia, to his home town for powering light, domestic washing machines and other home and community conveniences in his home community.

Mr. Krijakin is now owner of John's Boat Yard, Wilmington, Calif. Last year he made a trip back to his Yugoslavian homeland and visited Molat. At the time he owned the purse-seiner *Blue Sky*, 81½', but had it up for sale.

Noting that his birthplace was without electric power for domestic use, Mr. Krijakin promised the community that if and when he sold the *Blue Sky* he would use some of the proceeds to buy a small electric generating plant for his former compatriots.

His promise was fulfilled when he ordered the 25-kw. Lister through Bolstad Sales & Service, San Pedro.

What did Mr. Krijakin get out of it? The satisfaction of making life a little easier for his people, and the satisfaction of keeping a promise.

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Island Queen, one of the new Alaska limit craft built this year by the Jacobsen yard, Seattle, to serve Pacific American Fisheries' Alaska canneries. She is Caterpillar-driven through a Capitol gear.

Troll Fleet Goes Hungry Despite Tip-Top Prices

● Troll salmon landings were subnormal along the entire range of that fishery to the closing days of June.

California fishing came closest to being up to the mark, and bore some real promise, but has been handicapped by weather.

Alaska also was not too far off the pace through June.

But Oregon, Washington and British Columbia trollers had trouble getting enough fish for the pan. When they *did,* the prices reflected the scarcity, large red Kings selling consistently above 60¢ per lb., dressed head on.

● Weather was blamed for the bust by many fishermen. Storms were almost continuous off the coast through June and the boats were blown in much of the time. Those that were able to keep to sea, however, reported abundance of feed, but no salmon.

Puget Sound deliveries through June produce few Silvers, although the Canadian fleet was catching some.

In California the season started most encouragingly, with a nice run of prime fish found off Pigeon Point. After these disappeared during a blow some rather good fishing developed far to the north, in the Eureka region.

● Mild curing was extremely limited, both because of the scarcity of fish and the prices resulting from it. "Quantity insufficient; quality not attractive for splitting; price too high," is the way one Seattle specialist in this field explained the dearth of mild curing there.

The smoking trade has shown scant interest in mild cure thus far. There was a small carryover from last season, apparently enough for the summer business; and the buyers apparently felt able to hold back a bit to see if July wouldn't bring an up-turn in salmon supply, with a normal downward reaction in price.

Low though the mild cure pack was to the end of June, there was nothing in the picture that good, flush fishing in July couldn't cure.

And maybe it would.

"Buena Ventura" Repowered

The well known trawler *Buena Ventura,* owned and operated by A. Paladini, Inc., San Francisco, was repowered with a rebuilt "Cat" D1300 150 hp marine diesel engine, purchased from Peterson Marine Div., San Leandro, and installed by Diesel Engineering & Maintenance Co., San Francisco. The engine was equipped with a 2-1 Twin Disc reverse and reduction.

Two Alaska Limiters Join PAF Fleet

At work in Alaska this season for Pacific American Fisheries are two new wooden 53′ seiners, the *Terry K.* and *Island Queen,* built by Jacobsen Boat Co., Seattle. Drawing 6′, and with 15′ 3″ beam, each is propelled by a Caterpillar D326 marine diesel, 134-hp. continuous at 1600 rpm, with 3.88+1 Capitol hydraulic reverse-reduction gear.

Engine and gear were supplied for the vessels by N C Marine, Seattle, and each vessel has a 46x36″ propeller, complete 32-volt system with States Marine heavy duty batteries. They carry 7 men, 6 in bunks below forward and one or more topside; carry hydraulic equipment for seining. Both vessels registered trial speeds about 7½ knots.

Other equipment includes Onan 750w diesel-driven generating plants and Olympic galley stoves. The vessels departed late in June from final outfitting by the owners at Bellingham.

Can We Sell More Fish Abroad? How?

To try to find ways and means of expanding the market for US-produced fish and fish products by selling more of them to foreign countries, the US Department of the Interior last June 20 held a meeting of canners, fresh- and frozen-fish processors and other interested parties, with Interior officials in Washington.

About 25 industry representatives attended. Southern California was well represented by Ed Morris of the Southern California Fish Canners Association; Anthony Nizetich of the Fishermen's Co-Operative, San Pedro; and John Calise of the Seine and Line Fishermen's Union, San Pedro. Other segments of the industry were less heavily in attendance.

Ben Jensen Will Open Own Professional Office

Ben Jensen, who has been vice president and chief engineer of Marine Construction & Design Co., Seattle, left the firm July 1 to open his own office in naval architecture and design in the Pacific Northwest at an address to be disclosed later.

Mr. Jensen was associated with the MARCO firm from its formation in 1953 and has played a part in many of the interesting and significant innovations which have marked the firm's operations in the engineering and design of fishing vessels and the equipment they employ.

45,000 hours deep-water dragging before first engine overhaul...using RPM DELO Oil

The 56 foot dragger Noyo Star operates out of Ft. Bragg, California. Built in 1944, she received her first engine overhaul in 1957 . . . 13 years after launching! The Noyo Star uses RPM DELO Oil exclusively.

"I wouldn't use any other oil," says Owner and Captain Manuel Figueredo. "We ran 45,000 hours before the first overhaul! There were no stuck rings. There wasn't any corrosion . . . the engine is still in beautiful shape. We fish hard, every day, dragging in depths up to 350 fathoms, but "RPM DELO" keeps our diesel in perfect condition."

Shipnotes: 150 horsepower Murphy diesel powers the M.V. Noyo Star. Engine required only one overhaul in last fifteen years. Top speed is nine knots—fishes for sole, rock and ling cod. Navigation and fishing aids include a Fathometer, radio and Loran.

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"St. Mark's" New Power Lets Her Eat Up the Miles With Heavy Tow

● Repowered this spring with a 335-hp. Waukesha "Defender" marine diesel, the 87' *St. Mark* immediately went to Alaska. She went to work the hard way, with a tandem-tow of two other vessels from Seattle to Petersburg. Pulling the 99-g. t. *Howkan* and the 44-g. t. *Deception Pass*, she averaged 8½ knots for that part of her voyage; continued after dropping off the first vessel there, towing the latter to Excursion Inlet; and then continued to King Cove.

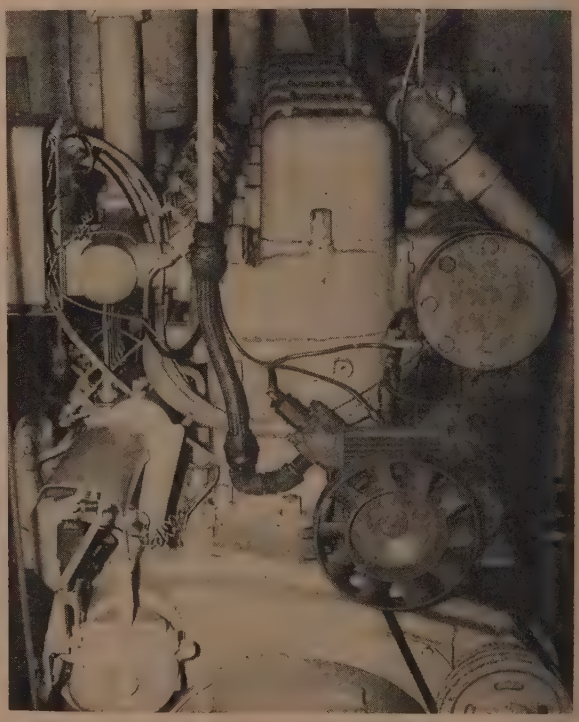
St. Mark is now operating as a tender between King Cove and the Shumagin Islands area, working for Pacific American Fisheries. Her skipper is Isaac Gould.

She works at 10½ knots now; has a completely refrigerated hold for chilled-seawater carrying of salmon, and has been outfitted for fishing King crab later in the fall.

Her engine, supplied with keel cooling and air starting through Piston Service, Inc., Seattle, is rated 355 hp. at 1215 rpm. The six cylinders are 8½" bore and stroke. Hydraulic reverse-reduction gear is Twin Disc MG 521, giving 4:1 reduction ratio.

The accompanying photos, courtesy of Pacific American Fisheries, were taken for *Pacific Fisherman* shortly after *St. Mark's* arrival at King Cove cannery, where the vessel is operating on a busy schedule.

Isaac Gould, skipper of the 87' refrigerated cannery tender **St. Mark** serving Pacific American Fisheries' King Cove cannery.



COMPACT PACKAGE for 335 horses—the Waukesha "Defender" diesel which repowered ST. MARK, a king pin in the PAF tender fleet serving King Cove. This duty, running between the Shumagin Islands and the Alaska Peninsula, puts a premium on dependability, for the stakes are high and the season short in the Western Alaska salmon industry.

Fishermen's Packing Elects Repanich for 16th Time

Jack Repanich was elected to a 16th term as president of the Fishermen's Packing Corporation at the recent annual meeting of the company, largest Puget Sound salmon canner, with additional connections in Southeast Alaska.

Retiring directors and officers were all re-elected. Beside Mr. Repanich, they are:

Directors—George Cuculich, Andrew Vitalich, Paul Serka, Joe Marinkovich, Frank Barcott Jr.

Officers — Peter Milos, first vice president; Andrew Vitalich, second vice president; John W. Plancich, general manager, secretary and assistant treasurer; Frank Barcott Jr., treasurer; George Cuculich, assistant secretary.

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Seattle's Oscar Iversen, owner of the salmon troller TRADE WIND, is an old hand at the fishing game—knows from experience the difference an engine can make in a boat's profits during a season.

Get him talking about the GM Diesel that powers his 43-foot boat and here's what he'll tell you: "I've caught more fish with my GM Diesel season after season because I haven't lost any fishing time due to engine trouble in 11 years. In my opinion, a GM Diesel permits *any* trolling boat owner to enjoy the maximum fishing time, simply because it's so reliable."

And he backs up his opinion with facts—like, for instance, the fact that he ran his 3-71 "Jimmy" for eight straight years before overhaul. And even then, the overhaul wasn't really needed—"I simply had the overhaul because I wanted to keep the engine running okay," says Iversen.

The TRADE WIND's GM Diesel is 20 years old—12 years since it was overhauled—and still has the power to save time getting to the grounds and back. Also the ability to idle down for trolling without fouling up. That's the kind of power you need in your boat to make extra money. Interested? Call your GM Diesel distributor—he's in the Yellow Pages under "Engines, Diesel"—or write direct for more information.

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Fishermen's Insurance Pays $9 for $1 in Canada

Canada's experience with unemployment insurance for fishermen has been a costly one.

"Three years have passed since this plan was introduced," James McGregor of the Unemployment Insurance Commission, Ottawa, told delegates to the Fisheries Council of Canada in Vancouver recently. "For every dollar we took in, we paid out in benefit $9.26."

Mr. McGregor, whose figures startled members of the council, said that the point had now been reached when a review of operations should be made.

"Taking unemployment insurance as a whole from its inception to the end of last March," said Mr. McGregor, "for every dollar of income from all sources—employee and employer contributions, government contributions, interest on investments, fines and penalties—we have paid out 89 cents. This will give some idea of how the fishing benefit plan stands in relation to the whole."

In February, 30,555 fishermen were claiming benefits—an increase of 32% in two years, and as the total number engaged in commercial fishing in Canada is estimated at about 35,000 over the year, the statistics showed that about 85% claimed benefits.

World Tuna Study Proposed for Hawaii

A world conference on tuna biology was suggested in the report of the U.S. delegation to the Tenth Session, FAO conference, held in Rome last winter. Recognizing the importance of tuna as a world fishery, the U. S. delegates suggested an international meeting to be held in Hawaii.

Hawaii was suggested as a locale because it is a center of tuna research, and because it has excellent facilities for meetings.

A second suggestion made by the U.S. delegates was to hold another international conference on the food values of fish and sea foods—provided money is available for the meeting.

Japanese U. S. Tuna Sales Reach 1,280,000 Cases

Sales of Japanese canned tuna for the United States market in 1960 reached 1,280,000 cases by the end of May, 610,000 cases being Albacore and 670,000 cases lightmeat.

The latest sale, No. 5, involved 180,000 cases of Albacore and 120,000 cases of lightmeat.

Offering prices were unchanged from previous transactions.

Fishing Vessel Subsidy To Offset Foreign Costs

Ability of the United States fishing industry to maintain a fleet capable of remaining competitive with other nations was strengthened greatly in June when President Eisenhower signed the congressional act providing for subsidy payments to offset in part the cost differential of constructing fishing vessels in the United States over charges in foreign yards.

The bill provides an annual appropriation of $2.5 million for three years. The money will be disbursed through the Secretary of the Interior.

Applications must meet numerous limiting qualifications, and subsidy benefits are limited to:

(1) A fishery suffering injury from which escape clause relief has been recommended by the Tariff Commission, and has been denied;

(2) A fishery found by the Secretary to be injured or threatened with injury by reason of increased imports of a fish or shellfish product not the subject of a trade agreement tariff concession, which is directly competitive with the fishery's product;

(3) A fishery found to be injured or threatened with injury by reason of increased imports of a fish or shellfish product that is provided for in the Free List of the Tariff Act of 1930.

The measure originated in the House and passed the Senate as result of the efforts of Senator Warren G. Magnuson of Washington, chairman of the Committee on Interstate and Foreign Commerce. One Washington commentator wrote: "Senator Magnuson is to be congratulated for his parliamentary adroitness in securing adoption."

Tanner Crabs Utilized In Alaska Experiments

Tanner crabs are being used commercially on an experimental basis in Alaska this season as operators seek a practical means of utilizing this secondary species, which is frequently taken in considerable numbers during King crab operations.

The Tanner crab is a "spider" species on the general order of the King crab, but much smaller and with less desirable meat. Some efforts to utilize the Tanners were made a number of years ago, but without sufficient success to encourage continuation.

The Tanner crabs apparently are the species packed by the Japanese under the trade name "Snow"; but are quite different from the variety packed by the Japanese under the "Kegani" term.

While the Tanners are quite abundant at some periods and places in Alaskan waters, and the product has definite appeal, the recovery is very low; this being the primary factor which hitherto has reacted against their commercial utilization.

Grays River Hatchery Cost Near ½-Million

Twenty-second unit in Washington state's system of salmon hatcheries, the Grays River station in Pacific County is expected to cost about a half-million, June 14 bid opening showing Halvorson Construction Co., Seattle, as low bidder at $478,872.

The job will include construction of a hatchery building, 100 by 40 feet, 10 outdoor concrete rearing ponds, a large earthen pond and two holding ponds for ripening salmon. A fish ladder, racks and trap will be included for the holding ponds. In addition, a new timber bridge for access to the hatchery site will be constructed to replace the present bridge. The hatchery site is approximately 48 miles west of Longview.

"This hatchery will be a great aid in our efforts toward rehabilitating our coastal salmon fisheries," Fisheries Director Milo Moore said, "along with doing its part toward maintaining salmon runs in the Columbia River, which are threatened now as never before."

Former "Penguin" Serves Now as "Carib Queen"

The former U. S. Fish and Wildlife Service Alaska patrol and service craft *Penguin* is now an element of the British Caribbean freighter fleet. While in the U. S. service she suffered a damaging fire and was purchased by H. C. Hanson, Seattle naval architect, who re-built her and sold her to the important Merren interests of Grand Cayman, British West Indies.

Renamed *Carib Queen*, she operates on a run from Belize, British Honduras, to Grand Cayman and occasionally to Jamaica and Miami.

"Yankee Girl" Pioneers Purse Seining Method

A development of salmon purse seining based on the Puretic power block is being tried out in Alaska this season by Capt. Paul Glenovich with his Bellingham seiner *Yankee Girl.*

The vessel was formerly equipped as a drum seiner, but the drum has been removed, although the "tub" remains, as does the vessel's stern roller. Above the fairleads which guide the net as it comes up over the power roller Capt. Glenovich as installed an idling sheave with a V-section, closely resembling that of a power block.

Loading of the net is handled by a Puretic power block suspended from a relatively low davit, instead of from the boom, as is common practice. The idling sheave serves to maintain tension on the seine as it passes over the power block. This permits the power block to be installed rather low without loss of gripping ability.

As the net comes from the power block it is guided by two men into the "tub" in which the *Yankee Girl's* drum formerly turned.

Augie Felando, part owner of the tuna seiner **Western Sky** visited Japan recently with Mrs. Felando. He is pictured here on the left, inspecting a net in the Ako plant of the Momoi Fishing Net Manufacturing Co. In the middle is **Alejandro Bermejo** of Wilbur-Ellis Peruana, Lima, Peru, and on the right **T. Yamano,** chief of the Momoi company's Pan-American Section.

It is understood that Capt. Glenovich is fishing his new rig with a crew of only five men, including himself.

Tuna Pioneer Passes

Anton Sumich, one of the first fishermen on the Pacific Coast to recognize the need for bigger tuna boats, died last month at his home in San Pedro, Calif. He was 79.

Early convinced of the need for bigger tuna boats, Mr. Sumih built two 104-footers, the *Spartan* and the *Defense.* He thereby became a pioneer in the trend toward bigger boats which is now so general.

Before coming to San Pedro, where he lived 20 years, he spent 35 years in Seattle, where he was one of the pioneers of the Northwestern salmon fishery. He was born in Podgora, Dalmatia, now a part of Yugoslavia.

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TOPS FOR SEINE SKIFFS!

This new 18' by 8' 4" aluminum seine skiff built for Anthony Mariani's Tacoma seiner "Georgia" by the Kazulin-Cole Shipbuilding Corp., Tacoma, has one of our popular Model 6-330, 100-hp. WESTERN FORD DIESEL Seine Skiff Power Package Units.

Our self-contained 100-hp. Seine Skiff Power Package Unit, at left, is complete with manual Capitol or S-N reduction gear, instrument panel, engine controls, mounted fresh water radiator cooling, engine housing, and engine bed rails. Ready, easy and quickly installed.

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Cape Falcon retrieving her net at sea. Note the built-up net bin which replaces the turntable; and particularly that the purse winch is located on the upper deck.

Converted CAPE FALCON

More New Wrinkles than a Shad has Bones

● As the parade of conversions from tuna clipper to seiner grew from 37 vessels in February to 57 in May, *Cape Falcon,* one of the most unusual and unconventional conversions went fishing from San Diego.

Capt. Sverre Jangaard, a veteran fisherman and one who has long been known as a man who thinks for himself and isn't afraid of anything new, has incorporated many innovations in the converted *Cape Falcon.* For example:

Cape Falcon has no turntable (this is not strictly new, but still unusual);

Her net platform is new false deck, aft of, and 4′ higher than the main deck;

Her purse winch is mounted on the upper deck;

She has an all-aluminum skiff;

Her fish receiving hopper has a false bottom, which can be taken out and fish unloaded through the hopper from the tank via the shaft alley;

Her clipper-style high hatch coamings have not been cut down;

She lost no fish-hold capacity in conversion;

Her net platform is covered with glass cloth and plastic, inside and out;

There are other minor innovations.

New Net Deck

● The most unusual, and most prominent, feature in the converted *Cape Falcon* is the new net platform, built about 4′ above the level of the main deck.

This platform extends from a bulkhead about 15′ abaft the galley to the stern, and from rail to rail. It is completely clear, with no equipment on it except the net itself (and the skiff when it isn't in the water). A stout rail, about 30″ high, guards the net deck on either side almost to the stern, where it is sloped down to the level of the net platform. Higher than normal, and flush at the stern, the net platform will ship little water and will quickly drain what it does take.

The fact that the net platform or working space is raised above the main deck makes it unnecessary to cut down the hatch coamings to the fish holds. Fish brailed from the net is discharged into a hopper through a hatch in the upper deck, which is about 4′ above the level of the net platform. The fish hopper extends down to the main deck, and fish are routed to any of the 12 fish holds by conventional chutes extending from the sides of the hopper to the hatches.

The hopper also has portholes in the side which can be opened to get into the interior of the hopper.

A false bottom can be taken out of the hopper when it is time to unload the fish at the cannery, and the hop-

Features - -

Purse Winch on House
No Turntable
Raised Net Deck
Increased Capacity
Fish-Handling Hopper

Sverre Jangaard, skipper of **Cape Falcon,** a smart fisherman who is never hesitant about trying something just because it's new.

per is then used as an unloading hatch, the fish being drawn from the shaft alley.

Unusual Main Deck

● On the main deck—the deck on which conventionally the winch and turntable are mounted—the condensers for the refrigeration system were left in place and a bulkhead was built in line with the condensers all the way across the vessel, from port to starboard. This bulkhead has openings so a man can move from the main deck to the net platform four feet higher, and aft of the bulkhead.

Most of the space between the galley and the bulkhead is taken up by the fish hopper, which is plywood lined with aluminum sheets, which are non-corrosive.

The main purpose of the bulkhead aft of the fish hopper is to close in more of the boat against loose water in rough weather; but the structure also helps to make the upper deck, on which the net winch is mounted, more rigid and stable.

The space under the net platform is used for fish storage, and this new space alone will hold 60 tons of fish.

First Aluminum Tuna Skiff

● *Cape Falcon* will ship what is believed to be the first big tuna seine skiff made entirely of aluminum to go into service on a tuna seiner.

The skiff — 28′ by 15′ — was made by Chaffee Machine Co. of San Diego. The material used is a special alloy, Kaiser Aluminum's 5086, with specially high resistance to corrosion. She has a double bottom throughout, and the space forward of the engine is sealed off. Her builders say she is virtually unsinkable. She has two ballast tanks, port and starboard.

Her bow is formed of ⅜" plate, with 3/16" for the rest of the hull. Her side frames and runners are ½-in. plate. Capt. Jangaard says she weighs about two tons less than a conventional wood skiff of the same size.

The skiff has plenty of power — a 671 GM diesel engine, six cylinders, 165 hp. This is actually more power than she needs in normal operation, Capt. Jangaard says, but with it she can act as a standby tow boat for the *Falcon* herself. She carries a capacity of 150 gallons of fuel.

One mighty handy feature of the skiff is a row of cleats along each side, welded into the side of the skiff and spaced hardly two feet apart.

Hugh Maxwell, superintendent of Chaffee Machine Co. and a well-known boatbuilder, says his shop is working on no less than seven aluminum skiffs for various conversion jobs under way or projected. Purse seine fishermen are showing a good deal of interest in all-aluminum skiffs.

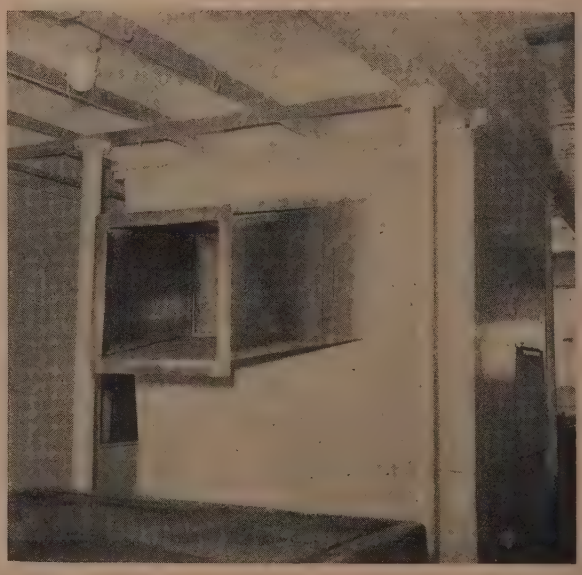
Besides the big skiff, the *Cape Falcon* ships a smaller boat, wood hull, her bottom reinforced with glass cloth and plastic.

Ten-Inch Net Rings Again

● *Cape Falcon's* new all-nylon net is Sea King brand, made by Fish Net & Twine Co. and supplied through C. J. Hendry Co. It measures 430 fathoms by 42, and is 4½" mesh except for 50 meshes of 8", 60 for the lead line strip and another protection strip of 8" webbing above the lead line. The cork line and zipper strips are of heavy braided filament nylon.

The lead line is 7/16" galvanized

All-Aluminum seine skiff saves thousands of pounds, increasing the vessel's fish carrying capacity by that much.



Fish Hopper extended from the upper deck to the shaft alley level, with chutes for diverting fish into wells as they are brailed from the net. It serves also in discharging fish at the cannery, drawing from the shaft alley.

chain, and the rings are 10" for fast and easy handling. The cork line carries 3000 6-by-7½-by-1¼" Goodrich Spongex floats.

The big net winch, mounted on the upper deck, is a Northern Dragger winch, and of course the *Falcon* uses a large-size Puretic power block. The winch is powered by a special engine, a GM 371 diesel, mechanically driven through a chain drive, but the controls are air-driven. Hydraulic power is used for the power block, the two Marco vang winches used to position the boom, and the Marco topping winch on the boom itself. Aeroquip hoses are prominent in hydraulic and air control systems.

Union Diesel Powered

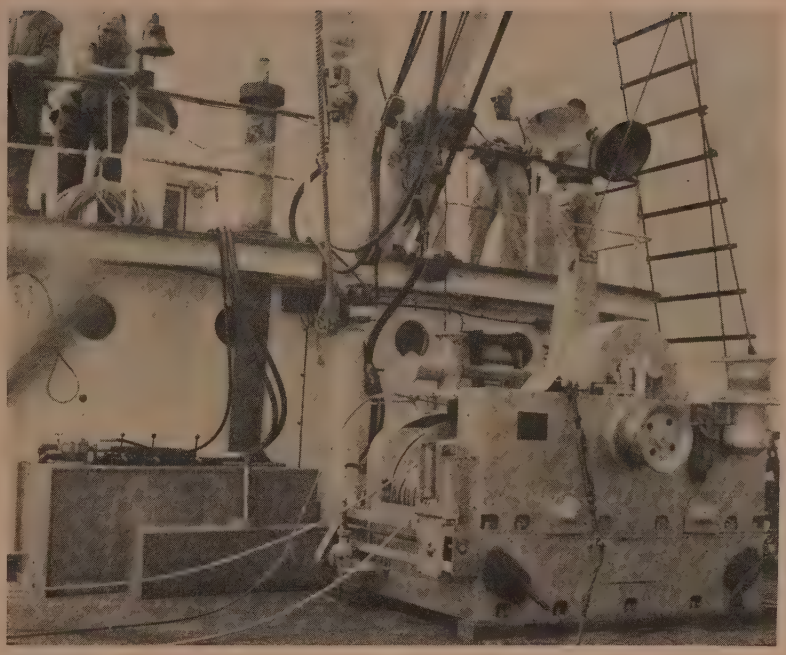
● *Cape Falcon's* main propulsion engine is a Union 560-hp. six-cylinder diesel engine, with two Union 190-hp. six-cylinder diesels for auxiliary power, this in addition to the 371 for the net winch. She has carrying capacity for 35,000 gals. of fuel and 1500 gals. fresh water.

Her refrigeration capacity is supplied by an ammonia system, with one Worthington six-by-six, and two Halls, one a 6½-by-6½ and one a 5½-by-5½. Her fish capacity is in the neighborhood of 280 tons, and this is one conversion that actually gained fish-hold capacity in the process. Most conversions have been losing a little through elimination of bait tanks.

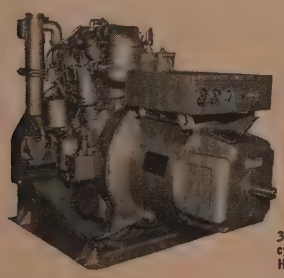
As Capt. Jangaard points out, the *Cape Falcon* conversion was an economy job. The vessel was left quite largely as is, with the minimum in major changes. A good deal of the dismantling was done by the crewmen themselves, on their way home from her last fishing trip before she went into the yard for conversion. The job was done by Campbell Machine Inc. of San Diego.

Cape Falcon is in fact a double conversion. She started out as a Navy YP (wood hull) and was converted from a military carrier to a tuna clipper. Among her navigation aids are a Fathometer, a Raytheon radar, Northern direction finder, Sperry gyro automatic steering, RCA 75-watt radio sending set, three receivers.

Besides Capt. Jangaard, the ship's executives are Tony Myrsetch, navigator, Ray Danielson, engineer, and Olaf Valderhaug, net boss.



Upper Deck Winch installation is one of the unusual features of the converted **Cape Falcon.** Hydraulic controls, on the left handle the clutches of the Northern seiner winch and the Puretic power block. Note the Aeroquip hydraulic hose lines.



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Aluminum Salmon seine skiff is this product of the Kazulin-Cole yard, Tacoma, where it was built to serve Anthony Mariani's Tacoma seiner **Georgia.** Power is a special package planned for seine skiff service, a Western Ford diesel with radiator cooling, a unit developed by Pacific Fishing & Trading Co., Seattle.

Aluminum Seine Skiff Uses Packaged Power

The first aluminum seine skiff built in Tacoma was completed last month for Anthony Mariani of the purse seiner *Georgia* of Tacoma, by Kazulin-Cole Shipbuilding Co.

As the latest in a growing parade of small aluminum craft, this skiff is notable in its somewhat heavier construction. Builder Mike Kazulin reports that he used 3/16" thickness in the aluminum sheet, being the 5086 marine alloy by Kaiser Aluminum. Eagle Metals Co., Seattle, supplied the Kaiser metal as well as the 1½"-diameter Monel shaft. The propeller is 26" Coolidge bronze, 3-blade, with nickel plating.

Electrolysis between propeller and hull is prevented by the engine arrangement. The skiff uses a 6-cyl., 100-hp. Western Ford seine-skiff diesel, an engine marined by Pacific Fishing & Trading Co., Seattle, especially for seine skiffs. Radiator cooled, the engine requires no thru-hull fittings except the propeller shaft itself. In this fashion the engine can be mounted on Micarta bearings and other insulators so that there is no complete electrical circuit between the propeller and the different metal of the hull.

The skiff is 18' long, 8' 4" beam, and 40" deep; draws about 22". The bottom is coated with a special paint for aluminum, but the rest of the hull is bare metal and requires no coating. Bumper material circling the guard is known as "Flexifloat" and came from Nordby Supply Co., Seattle.

The skiff has a 1" Jabsco bilge pump and hydraulic starting for the engine, using Weatherhead high-pressure flexible hose from Washington Belting Co., Tacoma.

Early Stuart Sockeyes Enter Fraser in June

First Sockeyes of the Fraser River's 1960 season entered the river coincidentally with the summer solstice. Their numbers were small at that time, and all appeared to be of the Early Stuart race, destined for some of the highest lakes in the system.

Gillnet fishing in the river and in parts of Puget Sound was opened during the period after June 27, but the general season for Fraser River Sockeye fishing will not open until July 17.

R. D. Ladd Honored As "Man-of-the-Year"

Robert D. Ladd, vice president and general manager of the Pacific Marine Supply Co. was honored this summer by selection as Seattle's Maritime Man-of-the-Year, a tribute paid annually by the Maritime Press Association.

Mr. Ladd has contributed to Seattle's fisheries and marine prosperity for years, currently being chairman of the Seattle Chamber of Commerce Maritime Division and a member of the Seattle Mayor's Maritime Advisory Committee. He has twice served as president of Northwest Marine Industries.

Lyman Repair Service, Eureka, Calif., has installed a Tasco Ford Six marine diesel engine from Thomas A. Short Co., Oakland, in a crab boat there. L. O. Mason, Bodega Bay, installed a Tasco Ford Four marine diesel engine in his crab boat **Nine Belles.**

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Wanted: Parts and maintenance manual for A4S LORIMER diesel engine. State condition and price. J. Poeter, 5556 Hallowell Ave., Arcadia, Calif.

FOR SALE: Seiner "Cape Clear", 82 ft. by 22 ft., 330-hp Washington main engine, auxiliaries, power block. Top shape, can be used as sportfisher or yacht. Sell with or without 300-fathom all-nylon net, 24 ft. skiff with 90-hp Chrysler. Fathometers, radiophone, radar, direction finder. John Evich, 1149 W. 10th St., San Pedro, Calif.

Troller "Lillie" 39 x 11.4, built 1942. New Chrysler V8—155 H.P. Just completely overhauled, most electronic gear. Price $9500.00. See Astoria Mooring Basin. Phone FA 5-5844, Otto Tiro, 307 Altadena, Astoria, Oregon.

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Light Steel Tripod Masts are among the features of these "beach" seiners built by Sagstad for San Juan Fishing & Packing Co. The two shown here have a sistercraft **Linda Lee,** identical in all regards except that she, like **Solveig** has a Chrysler Royal engine, while **Rebel** is powered with a Western Ford marine diesel.—Krantz photo.

San Juan Beach Seiners Sport Tripod Masts

Three "beach seiners" now operating in Alaska for San Juan Fishing & Packing Co. were built at Seattle this spring by Sagstad Marina. The 34 by 13½" vessels are *Rebel,* with Roy Dettinger; the *Solveig,* with Johannes Nygaard; and the *Linda Lee,* with Hans Neilson.

Rebel has for her propulsion a 100-hp. 6-cyl. Western Ford marine diesel from Pacific Fishing & Trading Co., Seattle, with a 2:1 Capitol hydraulic gear. The other two seiners are powered by 145-hp. Chrysler Royals from Doc Freeman's Seattle Marine Exchange.

All three vessels draw about 3'; have Olympic propellers, Marco-built Puretic power blocks, Olympic stoves, Wood Freeman Metal Marine Pilots, and Apelco AE 32 AM radiotelephones from Northwest Instrument Co., Seattle, which also supplied Ritchie Cruise Master compasses.

The 4-man seiners left in mid-May, after trials in which they averaged about 8 knots.

Designed by William Garden, Seattle naval architect, these vessels feature tubular steel masts with steel tripod supports extending forward (see photo). This has three advantages: it provides double duty because it can house the engine exhaust: it eliminates the need for shrouds and forestay, allowing free working space along the decks amidships; and it permits a light, strong mast support for the steel boom.

New Diesel Powering Veteran B. C. Troller

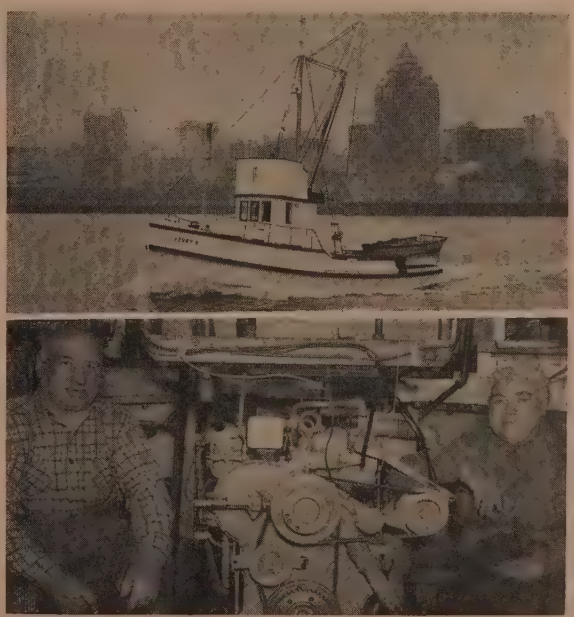
First of Caterpillar's new compact D320 marine engines to be installed on the British Columbia coast is in veteran fisherman Martin Warnock's 41' troller *Kerry W.*

The turbo-charged and aftercooled engine is rated at 80 hp. at 2000 rpm.

The Warnocks, living at Madeira Park, are a family long associated with west coast fishing. Both 69 year-old Martin and his wife, Kerry, 65, were born in B. C. and have lived in the Pender Harbor area since 1909. Martin has been fishing Pacific waters since 1914; in partnership until 1923, and on his own ever since.

The *Kerry W.* was originally a seiner, but it has been converted to straight trolling. An old-timer, the vessel was launched in Nanaimo in 1926.

"The boat has trained a family of fishermen in her day," says Martin Warnock. "Three of our sons — Ed, Jim and Bill — learned their trade on the *Kerry W* and now they have their own seiners. In addition, two of our sons-in-law have their own fishing boats."



Kerry W. is a veteran British Columbia troller in which Mr. and Mrs. Warnock have brought up their family as fishermen and the wives of fishermen. Here she is, Mrs. Warnock, and the vessel named for her, Mr. and Mrs. Warnock are shown beside the compact Caterpillar diesel with which their troller has just been repowered.

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"Repowered by Murphy Diesel" is the tune more and more of the older boats are singing these days! The *Henrietta Paladini*, 61-foot trawler originally built in 1928 and now owned and operated by A. Paladini, Inc., San Francisco, is one of the latest boats to be repowered by Murphy for dependability and economy. Her new Murphy Diesel, delivering 184 HP (continuous), is equipped with a 3:1 reduction gear and a 2½:1 front end power take-off to run an air compressor and the deck machinery.

For all-weather dependability and fuel economy, repower your boat with Murphy Diesel. Or if you are planning a new boat, be sure to specify Murphy for "true diesel" power. Ask your Murphy Diesel Dealer to recommend the engine that will best suit your boat and operations.

In the engine room of the Henrietta Paladini, *Skipper Sebastiano Bussalachi, who has been with the Paladini firm for the past 14 years, stands beside his new 184 HP Murphy Diesel.*

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Japan Albacore Fishing Experiences Sharp Upturn

Japanese summer Albacore deliveries took a sharp upturn toward the end of May after a number of disappointing weeks. To last report deliveries of Longfin tuna continued heavy at Yaizu and Shimizu.

About the time catches increased the tidal waves associated with the earthquakes in Chile seemed to disperse the schools of bait fish available to the fishermen and the demand for bait became so acute that its price increased 10-fold.

Under the pressure of increased landings, the price of Albacore sank from Y 150 per kilo to Y 120 at the end of May. To that date canners had been the only buyers, but freezers began to show some interest as the price declined.

They maintained that the export price currently available did not permit them to meet the landed price being paid by Japanese canners.

Further, they were confident that South Pacific, Indian Ocean and Atlantic Albacore supplies would be available in adequate volume.

LaV. Redfield, Eccentric Investor, Faces Charge

LaVere Redfield, Reno, Nev., millionaire whose personal and financial dealings have earned him a reputation for eccentricity, was arrested in Reno late in May on a charge of U. S. income tax evasion. He specifically was accused of having evaded $302,946 in taxes due during the years 1953 to 1956, inclusive.

Mr. Redfield at one time attracted a good deal of attention in the Pacific Northwest through acquisition of an important stock position in the canned salmon industry.

J. F. Cushing Joins PMS As Finance Manager

The appointment of John F. Cushing as finance manager and assistant secretary of Pacific Marine Supply Co., has been announced by Robert D. Ladd, vice president and general manager of the pioneer Seattle firm.

"A major concern of the marine industry," said Ladd, "is sound finance management of manufacturing, wholesaling and retailing. Because Pacific Marine is expanding certain divisions and is interested in all three phases, it is advantageous for Pacific Marine Supply to obtain top level experience in financial matters."

Mr. Cushing comes to Pacific Marine Supply with a background of 26 years financing experience in lumber and marine fields.

Pacific Shrimp Canning In the Bight of the Line

● Canned shrimp production in the Pacific Northwest and Alaska was beset with ills this summer, making it virtually certain that production for the season will be reduced sharply from former levels.

The troubles are associated with costs, legal actions and market prices, rather than with shrimp catches.

The Kaakinen case, when the Tacoma federal court held a patent infringement existed, has been appealed to the circuit court in San Francisco. This court decision had some effect in reducing operations.

Then the increase in Peelers machine rentals, effective June 1, left some packers with inventories of tiny shrimp inclined to dispose of them on the rather disinterested market before adding more goods at a cost increase estimated at from 30¢ to 60¢ per case, depending upon the size and condition of the shrimp.

In the meantime the Federal Trade Commission brought an action against The Peelers Company; its associate, Grand Caillou Packing Co., and their principals.

In addition to the general charges made in the complaint, one was to the effect that rates charged licensees in Oregon, Washington and Alaska are discriminatory in that they are higher than are granted in other states.

● Following the application of the new machine rates June 1, Ivar Wendt, whose *Pacific Pearl* brand is an important factor in Pacific canned shrimp sales, announced new prices per case of 24/4½-oz. tins, fob. Seattle, as: Tiny, $7.25; Small, $8; Medium, $10.

E. Pakistan Shrimp Plant Packing for Wilbur-Ellis

● The latest United States refrigeration machinery, packaged type, all air cooled and fully automatic, with all units completely housed, has gone into the new shrimp packing plant of Khulna Fish Production & Marketing Corp., Ltd., East Pakistan.

All machinery and equipment was supplied by Connell Bros. Co., Ltd., a subsidiary of Wilbur-Ellis Co. headquartered in San Francisco, and project engineer was Henry N. Craig, well known in the fish refrigeration business on the Pacific Coast, and now with Connell. Mr. Craig also designed the new plant, which is headed by Wahiduz Zaman, president.

The plant itself is located at Bajua, on the Pusur River, and is immediately adjacent to Chalna Anchorage. Shrimp are caught in the tidal waters, by natives using sail boats, which are sometimes propelled by oars, in drift and weir nets. Shrimp are alive when they are delivered to the plant.

The main plant building is 105 x 105′ and is built of reinforced concrete and brick. In a separate building is a water purification plant, with water purifying equipment from the U. S. All process water goes through this plant. All electricity is generated in another building by two Cummins diesel powered generators of 150 kw total capacity.

On delivery, shrimp are washed down, and iced with ice from a Vilter Pak-Icer, sent to a grading room, where they are held in ice and graded. A large chilling room has a capacity of 10 tons of shrimp in ice. Insulation for freezer and holding rooms consists of eight inches of Dow Styrofoam. Doors have electric defrosters.

From the chilling room, the shrimp go to the packing tables where they are layer packed in 5-lb. Western Waxide cartons.

The cartons then go to the freezer, refrigeration for which is provided by Kramer automatic hot gas defrost systems, capable of -30°F.

After freezing the cartons are overwrapped with heavy Western Waxide waxed paper wrappers, and put in 50-lb. Gaylord Container shipping cartons, and stored in a 300-ton capacity storage room, refrigeration for which is supplied by another Kramer machine, at -10°.

A reefer ship comes in about once a month and picks the pack up. Capacity of the plant is five to seven and a half tons per day, and the season lasts from June through February. About 125 people are employed.

The pack is marketed under the *Southern Royal* brand, and the entire production is distributed by Wilbur-Ellis Co.

Tuna Industry Looks at Problems And What's Done About Them

● Leaders of all segments of the tuna industry got together in June for a two-day discussion of industry problems and what the U. S. Bureau of Commercial Fisheries is doing to help solve them.

The meeting was a sequel to the gathering held last year at La Jolla, when the Bureau presented to the industry its proposed program of research, marketing and other activities, and the industry in turn offered some proposals of its own.

The Bureau called last month's meeting partly to report on what is being done as the result of the La Jolla meeting and partly as a guide to further activity, after discussion between the Bureau and the industry.

Last month's meeting brought together 100 leaders of the Pacific Coast tuna industry, representatives of the big canners, smaller canners, boat owners, and fishermen's labor unions. On the Government side, the chief figure was Donald McKernan, director of the Bureau of Commercial Fisheries, assisted by Don Johnson, Southern California coordinator of Bureau activities, and senior members of his staff.

Presentation and Discussion

The delegates heard several prepared statements, some illustrated with slides, on various aspects of tuna research and progress, and on the activities of the Bureau of Commercial Fisheries in marketing, ocean research, behavior studies of fish, etc.

On the second afternoon Mr. McKernan presented a round-up of the Bureau's work, after which the meeting was opened for general discussion.

Mr. McKernan's report touched on the following salient points:

The Bureau is working closely with the Navy for an additional weather station in the South Pacific.

The U. S. will sponsor its part of the international oceanographic research problem for the Indian Ocean, now fairly under way. On this statement, an industry representative remarked that the industry would look more favorably on research in the Eastern Pacific, but it had been impossible to get an appropriation of $400,000 for this close-to-home work, while a larger amount was being expended in the Indian Ocean. Mr. McKernan agreed, but pointed out that at least the Government had established the policy that oceanographic research is an approved activity of the Government.

Oceanographic research is to be coordinated on a worldwide basis, Mr. McKernan said, and a beginning in that direction was planned through an international UNESCO meeting to be held in Copenhagen. This, however, is still in the planning stage, with no date yet set for the gathering.

Fish as Food Promotion

● A world fish nutrition conference has been proposed, under the sponsorship of the Food and Agriculture Organization of the UN, Mr. McKernan said. This is to stimulate a world-wide effort to promote fish as a low-cost source of high-protein food. Tentative date, September 15-30, 1961; place, Washington, D. C.

A world tuna conference is also proposed, Mr. McKernan said, for 1962 in the U. S.

Mr. McKernan advised the industry to keep a close watch on European trade and economic blocs. The Bureau, he said, may try to place observers in key foreign cities to gather and issue information on how U. S. canners may best sell these markets, and how they can best protect their interests there. He pointed out that although across the board these blocs usually establish lower tariffs, they may raise them in nations where U. S. canners have markets.

Mr. Johnson described the work of various Bureau agencies in California. He said the work of the Stanford research laboratory on oceanography will progress more rapidly when temperature studies are completed, and said it was proposed to double this work when money is available. He pointed out that the Stanford laboratory's work is related not only to sardines but to tuna as well.

The Bureau's San Diego laboratory, Mr. Johnson said, would continue its work on tuna behavior.

It is proposed to continue through 1962 the studies now being made on freezing and transportation of tuna.

Market news and statistical services will continue at about the same level, it was stated. The loan program for work on fishing vessels has increased considerably since last year, Mr. Johnson said. This will be expanded into vessel mortgage insurance and a construction differential, if legislation now before Congress is approved.

It is proposed to set up a foreign reporting service, with headquarters in California.

High Interest in Foreign News

● The subject of foreign news brought out considerable comment from industry representatives, who seemed to want all the information they can get from foreign parts., especially Japan. Charles Carry of the California Fish Canners Association said his group wanted all possible information from tuna consuming areas, and recommended that some means be found to get this news first-hand rather than depend on Japanese sources. Mr. McKernan said it might be possible to add to the embassy staffs in foreign countries qualified men who could report reliably on consumption as well as production of fish in foreign parts.

Southern California Receipts

	Albacore	Bluefin	Skipjack	Yellowfin	Bonito, etc.	Total
San Pedro	8,791	192	9,331	58,234	20	76,568
San Diego	2,622	....	5,386	6,914	...	14,922
Total 1960 through June 11	11,413	192	14,717	65,148	20	91,490
Total 1959	7,317	2,106	28,599	56,641	113	94,776
Total 1958	5,643	1,691	24,958	48,726	321	81,339

JAPAN'S EXPORT TARGETS IN FISHERY PRODUCTS

(Fiscal Years Ending March 31)

Item	Unit	Actual export 1959-60	Export target 1960-61
Tuna, frozen	s/t	109,633	122,500
Tuna, canned	cs.48/½	3,441,324	3,700,000
Salmon, canned	cs.48/1	2,419,004	2,000,000
Swordfish, frozen	s/t	5,000	5,000
Crab, canned	cs.48/½	703,696	495,000
Sardines and saury	c/s.	1,542,156	1,843,000

Buchanan Again Heads B. C. Fisheries Association

John M. Buchanan, chairman of the board and president, B. C. Packers, has been re-elected chairman of the Fisheries Association of B. C., and R. T. Hager, president, Canadian Fishing Co., vice chairman. James Sinclair continues as president.

Pacific American Fisheries Adds 4 New Directors

Four new directors were elected to the board of Pacific American Fisheries, Inc., at its annual meeting late in May. They are: Harold W. Cameron, James B. Douglas, R. A. Moen and Irvine B. Rabel, all of Seattle.

Directors re-elected are: George K. Comstock, Joseph Muckley, Nat S. Rogers, all of Seattle; John A. Green, Everett; and S. G. Tarrant, Bellingham.

Mr. Tarrant was re-elected president, H. L. Scott vice president and D. L. Fickel secretary-treasurer.

Three new vice presidents were added from the operating divisions: George H. Rees, Wenatchee; Steig B. Osman and Erwin Hube, Bellingham.

Kenneth C. Bagley and Everett M. Boney were chosen assistant secretary and assistant treasurer.

New Type Gillnetting In Nylon Announced

Development of a new nylon gill netting called "Tanglefin" is announced by The Linen Thread Co., Inc. It was described by the company as one of the most important advances in commercial fish netting in more than a century.

The formal announcement was preceded by prolonged testing of the new netting by commercial fishermen, and by Linen Thread's laboratory.

Made of continuous filament nylon on especially developed machines at Linen Thread's Blue Mountain, Ala., plant, the new gill netting was reported to be remarkable for its wet strength, knot retention, mesh stability and exceptional handling qualities —all long-sought goals in nylon gill netting.

According to H. C. Johnson, manager of Linen Thread's Netting Division, the new netting represents results of years of Linen Thread Company research. This research, he stated, was directed at perfecting the manufacture of nylon gill netting so that full benefits could be gained by fishermen from nylon's inherent advantages as a rot-resistant, non-absorbent, light-weight material of proved efficiency as a gill netting.

"With our field tests completed," he said, "it is apparent that 'Tanglefin' netting offers American fisheries a major technological advantage for reducing costs and increasing catches and profits."

Tanglefin nylon gill netting is made in mesh sizes of from 2" to 10", inclusive (stretched measurement), and in twine sizes 69 through 346.

Point Chehalis Packers Can Crab at Cordova

Point Chehalis Packers' crab cannery, moved from Westport, Wash., to Cordova, Alaska, this spring, was in full operation in June with a good supply of crabs.

With a fleet of 14 or 15 boats fishing at the peak, this cannery is expected to produce one of the larger packs of canned Dungeness crabs in Alaska this year. The fleet was materially reduced in June when local boats went salmon fishing, but the big crabbers associated with the company ownership continued in active production.

Point Chehalis Packers, Inc., is composed of Roy Furfiord, Barney Nilson and James Poor, the latter being manager of operations while the others are leading vessel operators.

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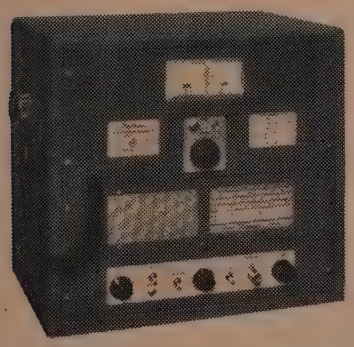

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	Polypropylene pot warp (Pacific Dungeness Crab)	special lay 5/16", 3/8"
SALMON	Nylon tow lines, purse lines, lifting pieces for purse seining	5/8" thru 1"
	Polypropylene	
	gill net cork lines	special lay 13/32"
	purse seine cork lines	5/8" thru 3/4"
	purse seine breast & ring lines	1/2" thru 5/8"
	purse seine tow lines	3/4" thru 1"
	stabilizer & pole lines (Trollers)	3/8" thru 1"

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World Fishing Boats FAO Volume Published

"Fishing Boats of the World," Vol. 2, edited by Jan-Olof Traung from papers and discussions of the 1959 Second World Fishing Boat Congress, sponsored by the Food and Agriculture Organization of the United Nations has just been published by Fishing News (Books) Ltd., London. Price of £7/7 figures out at about $20.50, cloth. The volume has 820 pp.

The fifty odd, carefully selected, papers submitted at Rome have been supplemented by a number of other major contributions. The discussions have been enlarged by writings, both critical and explanatory, from other experts so that the volume covers a tremendous field. To the far more than half-a-million words supplied by some 170 contributors (including 65 major authors from the main fishing countries of the world) there are added 800 illustrations and diagrams as well as some 200 tables making the volume undoubtedly the most noteworthy production in its field ever issued.

Fishing practice in every type of sea by many different kinds of craft and methods is dealt with in four major sections: Tactics, Construction, Sea Behavior, Productivity.

Booth Fisheries' Net Earnings at New High

With a 5% rise over the previous year, to $889,155, earnings of Booth Fisheries Corporation set a new record in the fiscal year ending April 30, according to R. P. Fletcher Jr., president.

"We're packing greater and greater quantities of convenience foods," he said. "We're really in the frozen food business." About 70% of sales currently are processed, packaged and frozen fish, up from 40% 10 years ago, he said. Six new products are about to be marketed, he added, including a fish TV dinner.

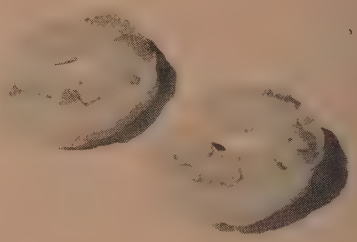
Booth has no plans to diversify outside the fish industry. "From time to time we've looked into other fields but we concluded we can utilize our capital better in the fish industry," Mr. Fletcher noted.

Tuna Scientist Passes

Martin Pollak, senior oceanographer of the Inter-American Tropical Tuna Commission, died suddenly last month. Mr. Pollak had joined the commission as a replacement for Townsend Cromwell, who was killed in an airplane crash in Mexico in 1958.

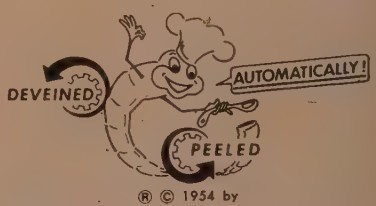
Dr. M. B. Schaefer, director of the Commission, announced that Mr. Pollak's work would be carried on by E. B. Bennett, who has been associated with Mr. Pollak.

Isn't there more profit in selling shrimp...



than there is in selling shells?

The Peelers Co. specializes in automatic shrimp peelers, deveiners and graders.



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FOOD FISH MARKETING
Section of PACIFIC FISHERMAN —

News and Views of National Trade in Fish and Shellfish

July 1960

Tuna Imports Suffer as Seiner Landings Rocket

● Imports of frozen lightmeat tuna from Japan into the United States in the first quarter of 1960 were *less than half* the volume of the same quarter in 1959.

Why?

On the surface this phenomenon would appear to trace directly to the supply of lightmeat tuna being produced by the Bonanza landings of the converted tuna seiners, and *available to prices in direct competition* with Japanese quotations.

Furthermore, with at least 20 vessels in the process of being converted, and due to go fishing in the next few weeks, American canners are being cagey about committing themselves on imports at firm figures.

In marked contrast to the condition pertaining in the frozen Lightmeat tuna trade during the first quarter, and tending to prove the reasons for it suggested above, is the 70% increase in imports of frozen Albacore in the first three months of 1960 over the same period of 1959.

While imports of Albacore — not caught by seiners — were going up 70%, the imports of Yellowfin, which makes up the bulk of the tuna seiners' catches, went down 46%.

The answer would appear to lie in the abundance of seine tuna available at price levels matching those of imports.

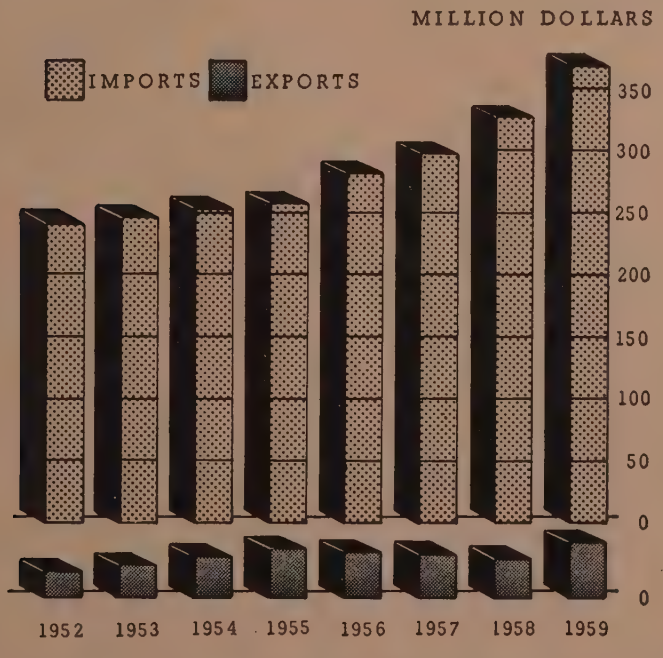
● Imports of Albacore tuna canned in brine showed an astonishing condition.

The total amount imported in the first quarter rose 4% over the first three months of 1959; but the imports from Japan were down 23%.

Where Japan formerly was the only significant source of canned Albacore imported into the United States, other countries have entered the trade actively. This is notably true of Spain, which accounted for a substantial part of the first quarter increase, enjoying a trade stimulated in some degree by devaluation of Spanish currency.

A somewhat similar situation appears in the Lightmeat in brine imports during the first quarter. This overall trade was down 26%; but Japan's portion of it fell by 37%, reflecting the increasing amount of business done with the United States tuna importers by countries other than Japan.

IMPORTS AND EXPORTS OF FISHERY PRODUCTS, 1952 - 1959



United States foreign trade in fishery products during 1959 was valued at 411 million dollars -- 15 percent greater than in 1958. Imports valued at 367 million dollars were 12 percent greater than in 1958 while exports valued at 44 million dollars were 43 percent greater.

Oceanic Sales Company Continues Under Stevens

Oceanic Sales Company, one of the old and substantial elements in the canned fish brokerage business at Seattle will continue in its field and service to its canners and customers in spite of the recent death of J. E. Salmon, for many years its president and chief executive.

This was announced at the end of June by James Stevens, who has been vice president and sales manager for a number of years under Mr. Salmon and the late Leo White, and who now becomes head of the business. He has been associated with Oceanic Sales for 14 years, six of them in the sales manager's office.

He announced that there would be no changes in personnel of the company, other than that occasioned by Mr. Salmon's death; and that the firms principals, customers and brokerage connections would be unchanged.

The company's offices will remain in the Smith Tower, Seattle, although after August they will be located on a different floor of the building from that occupied for many years.

It was organized in 1927 at a time of marketing crisis in canned salmon and is generally recognized in the business as having conformed well to its slogan: "A continuously constructive force in the salmon industry."

LLOYD TURNACLIFF reacted jovially when the Northern California Seafood Institute honored him recently for his efforts while Institute president from 1957 to 1960. As PF pictured the ceremony, from the left: **S. A. Sherriff,** Rupert Fish Co., Inc., director; **Lionel Shatz,** A. Paladini, Inc., chairman of the board; **John Gilchrist,** secretary-manager; **M. S. Cowen,** M. S. Cowen Co.; **Lloyd Turnacliff,** Meredith Fish Co., former president, now an honorary board member, and **Budd Thomas,** Eureka Fisheries, Inc., president, NCSI. Mr. Cowen has just presented Mr. Turnacliff with an Olympic-type statuette for being the "worst" president NCSI ever had, and with a beautiful silver pitcher.

North Californians Work On Fishery Projects

Highlight of last month's meeting of the Northern California Seafood Institute was the presentation on behalf of the members, by M. S. Cowen Co., to Lloyd Turnacliff, Meredith Fish Co., of a suitably inscribed silver pitcher, and an Olympic-type statuette for being the "worst" president NCSI had ever had.

Mr. Cowen expressed the gratitude of the members to Mr. Turnacliff for his unselfish efforts in serving as president of the institute from 1957 to 1960. He is now an honorary director.

The NCSI is now working on two projects with the U. S. Fish & Wildlife Service. First, a proposal to establish personnel of the Bureau of Commercial Fisheries on a permanent basis in San Francisco, and secondly a project calling for allocation of Saltonstall-Kennedy funds to northern California for research on salmon and bottom fish. John Gilchrist, secretary-manager, NCSI, reported congressional action had been taken to approve a budget item (not S-K funds) of $150,000 for research on the proposed establishment of artificial spawning channels in California.

He also reported that favorable consideration was being given to a request for a perch tagging station at Morro Bay.

Mr. Cowen, and John Peterson, Washington Fish & Oyster Co. of Calif., called attention to the recent congressional hearings on prawn imports (tariff) and advocated the cooperation of NCSI and the American Seafood Distributors Association.

Plans were discussed for the Fishermen's Wharf Fiesta, and the Fishermen's Picnic Afloat, which is scheduled to take place at Angel Island, Sept. 18.

A motion was passed by NCSI that unless positive legislation is passed to insure proper water releases under the proposed California Water Plan for the preservation and enhancement of the salmon resource, the NCSI would oppose the California Water Bond Act.

Louis Vitale, Los Angeles Smoking & Curing Co., reported on activities at the NFI convention.

Dr. Paul Needham, fisheries biologist, University of California, spoke on various aspects of the California Water Plan as that plan would affect the remaining salmon spawning grounds. He called attention to the critical condition of the salmon resource, warning that it could be faced with extinction if proper safeguards were not remanded.

A representative group from the State Purchasing Office including Mrs. Helen Musso, Harry Winther, and Claron Jorgenson discussed state purchasing practices and policy in the buying of fresh and frozen fish.

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L. A. Peterson Elected Nefco V. P. for Sales

L. A. Peterson, for several years sales manager of New England Fish Co., late in June was elected vice president in charges of sales.

S. M. Rosenberg continues as president of the company and William Gillespie as secretary.

Oscar Bergseth, who has been vice president and general superintendent, was elected vice president in charge of production, and also treasurer.

Below Average Hawaiian Skipjack Catch Forecast

A below average catch of Skipjack in Hawaiian waters is forecast this year through application of the temperature data which for the past two years have proven sharply accurate in predicting abundance.

Thus early in 1959 Vernon Brock, director of the Honolulu office of the U.S. Bureau of Commercial Fisheries was able to predict a good season, which was forthcoming.

This spring's data indicated a catch well below 1959 and the past 10 years.

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FOR PRODUCERS OF FOOD PRODUCTS
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New modern package design dominated by beautifully reproduced natural color vignettes distinguishes the new overwrap for the extensive line of Rupert Brand frozen fish distributed by British Columbia Packers, Ltd. The label was developed for planned national distribution of more than 40 items of seafoods. Exacting production requirements were handled by Western-Waxide Division, Crown Zellerbach Corporation. The Rupert Brand symbol, a red bullseye, is printed on the package left against an abstract fish design of alternating blue and yellow. The combination establishes "family" identity to ensure immediate brand identification.

Early Salmon Sells At Last Price Quotes Under Usual Guarantees

● First shipments of new pack canned salmon were arriving from Alaska in limited quantities as this was written shortly before the end of June.

They were moving out readily on previously placed orders at last quoted prices, subject to the usual guarantees against sellers' own opening prices.

Under these conditions, interest was reported good for the very moderate quantities available. These represented the pack of the Copper River Sockeyes, which was disappointing in volume; Early False Pass Reds and Chums; Early Cook Inlet Sockeyes and some Kings; Nushagak Kings taken in the large-mesh netting season in advance of the Red salmon season on Bristol Bay.

F. A. Gosse Heads World Trade Club Again

Fred A. Gosse, head of the canned fish brokerage firm of F. A. Gosse Company, this summer was re-elected president of the World Trade Club, Seattle.

The Gosse Company recently moved its offices to the Colman Bldg., Seattle, with the office entrance at 96 Columbia St.

California Imports of Frozen Tuna

Cumulative data in tons for 1960 through June 11, and for other years to the nearest comparable date. Data from U. S. Market News Service.

	Albacore	Skipjack	Yellowfin	Unclassified	Total
San Francisco	861	14	4,656	417	5,948
San Pedro	8,791	2,977	11,920	61	23,749
San Diego	2,622	729	793	..	4,144
Total to June 11	12,274	3,720	17,369	478	33,841
1959	7,650	3,586	26,895	21	38,152
1958	7,127	1,887	17,353	84	26,451

Continental's 'Beaded' Can Being Tried for Mackerel

The new "beaded" can being introduced for fruits and vegetables by the Continental Can Co. is being tried in the 1-lb. tall pattern by some California fish canners in an experimental way.

Thus far the can is believed to have been used only for canning mackerel, with the probability that later it will also be used experimentally for canning sardines, natural, in talls.

The can differs from the standard in having closely spaced corrugations running around the body except for a narrow band at each end. The method is said to make possible more precisely round cans and to reduce handling and shipping damage, while eliminating any possibility of panelling.

In fish canning it is felt that the "beaded" can could be used only for products with a good deal of free liquid in the can, and which thus would slip freely from the can in spite of the beading.

Southern California Domestic Tuna Deliveries

Cumulative totals for 1960 through June 11, in tons, as reported by U. S. Market News Service

	Albacore	Bluefin	Skipjack	Yellowfin	Bonito, etc.	Total
Clippers and Albacore Fleet	....	....	8,700	13,012	...	21,712
Purse Seiners	....	131	887	40,847	20	41,885
Total 1960 through June 11	....	131	9,587	53,859	20	63,597
Total 1959	....	2,084	25,111	33,914	113	61,222
Total 1958	4	1,609	23,089	33,884	319	58,901

Seattle Market

Market prices currently quoted at presstime by Pacific Northwest brokers and cannery sales department, cases of 48 tins, unless otherwise specified, good quality, as reported by the U. S. Bureau of Commercial Fisheries, Market News Service.

Items and Packages	Per Case
Puget Sound	
Sockeye, halves	$24 -25
Sockeye, quarters	14 -14.50
Alaska	
Red, talls	36 -38
Red, halves	23 -25
Pink, talls	24 -25
Pink, halves	13.50
Pink, 4-lbs. (12)	-25
Coho, talls	31
Coho, halves	18.50-19
Coho, quarters	-11.50
Chum, summer, tall	-22
Chum, summer, halves	12 -12.50
Chum, 4-lbs. (12)	-23
Chinook, talls	31 -32
Chinook, halves	24
Columbia River	
Blueback, halves	26 -27
Blueback, quarters	14.50-15
Chinook, fancy, halves	26 -27
Chinook, fancy, quarters	14.50-15
Chinook, choice, halves	-18.50
Chinook, choice, quarters	-11.75
Silver, halves	(No quotation)
Silver, quarters	(No quotation)
Tuna, Northwest Pack—	
Albacore, fcy., 7 oz.	13 -14
Yellowfin, s/pack, 7 oz.	11.00-
Yellowfin, chunk, 6½ oz.	9.50-10.10
Tuna, Featured Pack—	
Albacore, fcy, 7 oz.	14.85-15.25
Albacore, fcy., 3½ oz.	9.10- 9.15
Albacore, chunk, 6½ oz.	10.50-13.25
Albacore, chunk, 3 oz.	6.50- 8
Lightmeat, fcy., 7 oz.	14.25
Lightmeat, fcy., 3½ oz.	8.55
Lightmeat, chunk, 6½ oz.	11.00
Canned Shrimp—	
Northwest: 4½ oz. wet pack	7 - 7.25
Alaska: Tiny (over 17 per oz.)	7.00- 7.25
Small (10-17 per oz.)	- 8
Medium (6-9 per oz.)	-10

Japan Fishmeal Makers Disturbed by Imports

Authorization of imports of 20,000 tons of fishmeal to Japan aroused that country's producers when it was granted this spring by the Japan Fishery Agency to the Japanese Agricultural Federation.

This is a particularly interesting transaction at a time when the Japanese are doubling their fish reduction operations in Bering Sea and apparently exporting much, if not all, of the fish meal produced to Europe.

TWO GREAT BRAND NAMES IN FROZEN FRESH SEAFOODS

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Nine Aluminum Skiffs Built for Seiners

The aluminum skiff is gaining favor with skippers of converted tuna purse seiners. No less than nine of the new, light-weight metal skiffs are being built or have been built for new seiners.

Sverre Jangaard, always an innovator, ordered the first aluminum skiff for his converted *Cape Falcon*. Other tunaboats which are or will be equipped similarly are:

South Coast, Liberty, Santa Rosa, Aggressor, Coimbra, Elsinore, Mary S and *Jo Maria*.

Chaffee Machine, San Diego, is building the skiffs. This yard is particularly active in aluminum boat building. On the cradles at Chaffee, besides the skiffs, are an all-aluminum transport for service to Catalina Island from the mainland, and a glass-bottom aluminum boat for excursion service in and around San Diego Bay.

Fish Boat Burning Draws Five-Years in Prison

William Reed Nelson, a Seattle fisherman, was sentenced in June to serve five years in federal prison upon his confession that he had set fire to the 148′ wooden fishing and packing vessel *Jamene* in May, 1959.

Outboard Motors Spur Economy Of Both Fishermen and Nations

● Outboard motor powering of small fishing craft as a means of advancing the economy of countries as well as individuals was the topic of a recent First International Conference on Small Craft for Fisheries, held in New York City under the sponsorship of Outboard Marine International S.A.

The meeting was attended and acclaimed by representatives of 37 nations.

Jan-Olof Traung, chief of the fishing boat section of the Food and Agriculture Organization of the United Nations, in his paper, "Outboard Mechanization in Fisheries," stressed the overriding need for increased fishery production throughout the world, and pointed out that the outboard motor provided the solution to the problem in many countries.

Citing instances in which fishery production was increased by as much as 1,000% by means of small craft mechanization, Mr. Traung pointed out that while governmental programs to improve fisheries were desirable, individuals and cooperatives normally obtained results more quickly. Delays are understandably common in setting up governmental programs, whereas sales to individuals and groups on the installment plan have proved to bring immediate action.

Among the countries who sent representatives to the conference were: Argentina, Australia, Belgium, Brazil, Ceylon, China, Dominican Republic, Finland, France, Germany, Ghana, Greece, Guatemala, Haiti, Iraq, India, Italy, Korea, Liberia, Netherlands, New Zealand, Pakistan, Peru, Portugal, Puerto Rico, Sweden, Tunisia, United Arab Republic, United States, Venezuela and several international organizations, including the United Nations, Organization of American States, Food and Agriculture Organization and CARE.

W. C. Arnold Practicing Law in Anchorage

W. C. Arnold, who for a number of years was the managing director of the Alaska Salmon Industry, Inc., prior to its dissolution last winter, in May opened a law office in the Lathrop Building, Anchorage, Alaska.

Two Elliots save 13 men from Trawler THOMAS L. DEVLIN (Dec., 1959). Elliots are made in 4, 6, 8, 10, 12, 15, 20, and 25 man sizes.

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Gloucester, Mass.: Westerbeke Fishing Gear
New Orleans, La.: Neptune Supplies, Inc.
New York: New York Marine Distributing Co.
Norfolk, Va.: Paxton Co.
San Francisco, Calif.: C. J. Hendry Co.
San Pedro, Calif.: C. J. Hendry Co.
San Diego, Calif.: C. J. Hendry Co.
Seattle, Wash.: Nordby Supply Co.

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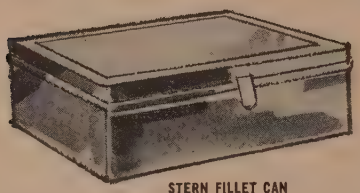
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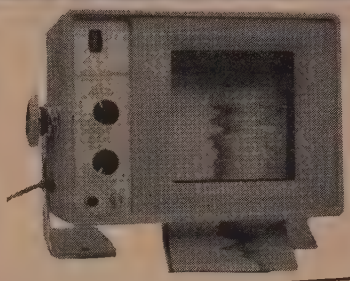

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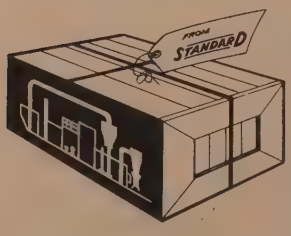

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Coast Oyster Co. Builds Second Hydraulic Dredge

● Coast Oyster Co., Eureka, is having the Eureka Boiler Works, build it a new hydraulic dredge, and two steel scows equipped with double power conveyors on each.

The hydraulic dredge *Ralph Hayes,* developed by Coast Oyster Co. some years ago has proved so successful that it, and two steel scows with double power conveyors on each was shipped to Willapa Harbor, Wash., for use in the company's operations there.

The new dredge, *R. H. Bailey,* named for its inventor, and the two power scows will be used on Humboldt Bay. The hydraulic dredge is a twin of the *Ralph Hayes* with some minor improvements, according to Frank Donahoe, vice-president in charge of operations. It will be 24x70′ and will be driven by a 180 hp. 100 kw generator set, which is yet to be chosen. Delivery is scheduled for Sept. 15.

Each of the two new steel scows has a Lister diesel engine from Lyman Repair service, powering two belts 46′ long x 12″ wide. The scows are 18 x 50′ with 4′ gunwales. They are used for planting seed, transplanting oysters, and conveying oysters to the shucking plant.

The *Ralph Hayes* and the two scows are already on the job in Willapa Harbor. They were towed up by the Oregon Towing Co. tug *San Marcos.* These dredges cover half an acre per hour and will pick up 99% of the oysters in the area.

The market for fresh oysters in California is so good, according to Mr. Donahoe, that the cannery in Eureka has been closed, and the canning machinery installed at the South Bend, Wash., facility, where that plant's capacity has been expanded.

Artificial Spawning Channel Prepared for 1961 Pinks

A new development in the study of artificial measures for producing salmon is being undertaken by the International Pacific Salmon Fisheries Commission. An artificial spawning channel 3000′ long and 20′ wide is now being constructed by the commission adjacent to Seton Creek near Lillooet, B. C. The channel is expected to substitute for Pink salmon spawning areas flooded out by the B. C. Electric diversion dam recently constructed on Seton Creek. Land for the project has been made available by the Company. It is estimated that a minimum of 10,000 Pink salmon can spawn successfully in the area with at least double the rate of production from spawning in the natural stream below the power dam.

Operations of the Seton Creek spawning channel will be carefully controlled and recorded as to cost and efficiency that comparisons can be made with the operations of the new Pitt River experimental hatchery scheduled for completion in August of this year.

Experimental spawning areas under investigation by the Department of Fisheries and the Commission since 1953 have proven to be very effective in increasing salmon fry production and the cost of operation appears to be considerably less than for the standard type hatchery.

Magnuson Would Double S-K Research Funds

Doubling of fishery research funds available under the Saltonstall-Kennedy Act is being sought today in legislation co-sponsored by Senator Warren G. Magnuson, D., Wash., and Ernest Gruening, D., Alaska.

"By making $10,000,000 available annually to states and higher educational institutions instead of the current $5,000,000 many new productive research programs could be undertaken in addition to those now underway," Senator Magnuson said.

He explained that the Magnuson-Gruening measure (S. 3658) would raise from 30% to 60% the portion of custom duties collected on fishery products to be used for fishery research.

Senator Magnuson said a check of U. S. Fish and Wildlife Service showed that "many worthwhile studies have been postponed or delayed because of lack of Saltonstall-Kennedy funds."

Unless "many of these needed studies are undertaken, U. S. fisheries, including the North Pacific salmon, may dwindle still further," he said.

During the past six years the S-K funds administered through the Bureau of Commercial Fisheries has permitted research contracts with 36 colleges, seven state agencies, four federal agencies and 35 private institutions or industry associations.

Japan Freshwater Fish Team to Visit U. S.

Scheduled to spend about two months visiting freshwater fisheries in the United States, an inspection party of Japanese is due to leave Japan about July 20.

It will be headed by Koichiro Kobayashi, president of Nichiro Gyogyo K.K., and of the Japan Salmon Resources Protection Association. General advisor is another man well known to fisheries leaders in the United States and Canada, Dr. Kisaburo Taguchi, chief of Nichiro's biological staff.

Others on the team will include: Masao Okai, managing director of Kyokuyo Gyogyo K.K. and a group of national and prefectural fisheries representatives.

Australian Tuna Catch And Exports Advance

South Australia's tuna catch during the first four months of the current year ran almost double that of like period in 1959.

South Australian Fishermen's Cooperative, Ltd., during that period had shipped 400 tons of frozen tuna—presumably Australian Bluefin—to the American Pacific Coast; and was scheduled to send 250 tons additional before summer.

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4 Coast Packers Spend 5.3 Millions Advertising

Four Pacific Coast fish canners spent $5,350,000 advertising their brands in magazines, newspapers, newspaper supplements, network television and spot television in 1959, according to a study by *Food Field Reporter*.

Of these the largest expenditure was $2,870,000 by Star-Kist Foods, Inc., on its Star-Kist brand. Of this amount $350,000 was in magazines, $1,555,000 in newspapers, $826,000 in supplements and $139,000 in TV spots.

Van Camp Sea Food Co. spent $1,205,00 in the media listed. Most of it went on *Chicken of the Sea,* $77,000 in magazines; $166,000 in newspapers; $768,000 in TV networks. In addition, with Pillsbury Flour $82,000 was spent in newspaper supplements; and for *White Star* the company spent $84,000 in magazines and $28,000 in newspapers.

Westgate-California Co. spent $634,000 in the media listed, all of it on *Breast O' Chicken* except $30,000 on *Tunies* in newspapers. Magazines got $190,000, newspapers $201,000 and spot TV $213,000 of the *Breast O' Chicken* appropriation.

Columbia River Packers Association, Inc., spent $641,000 advertising its *Bumble Bee* brand on TV spots, with $588,000 of the total on *Bumble Bee* seafoods generally and $53,000 specially on tuna.

Reduction Machinery Moved

Viggo Paulsen has moved his Sea Wolf Packing Co. sardine reduction plant machinery from Moss Landing, Calif., and will set it up at Port Arthur, Texas, to work on menhaden.

Columbia's June Chinook Run Shows Rebuilding

Encouraging evidence of rebuilding of the June Chinook salmon run in the Columbia River in spite of dams, diversions, pollution and other effects of civilization is seen in the strong run of more than 32,000 Chinooks and 2,000 Bluebacks (Sockeyes) over Bonneville Dam during the period from June 1 to 15.

This is the second best escapement since 1950 and results from the closure of commercial fishing from late May until June 16. Fishing from then until July 15 is subject to 30-hour weekly closures.

Commercial deliveries of salmon on the Columbia following the June 15 re-opening were only fair and were marked by the appearance of an unusual number of Silver salmon for so early in the year.

Sund Succeeds Stolk As Canco President

William C. Stolk was elected chairman and chief executive officer of American Can Company, and Roy J. Sund was elected president of the company, at a meeting of the board.

Mr. Stolk has been president of the company since 1951 and chief executive officer since 1952, when the post of chairman was vacated by the retirement of C. H. Black.

Mr. Sund has been a director of the company, vice president in the corporate executive department, and general manager of the Marathon division. Mr. Sund, as Marathon corporation director and executive vice president, brought 33 years of Marathon service and experience into the consolidated organization when Marathon joined American Can in 1957.

Westgate Moves Cannery To Ex-Van Camp Site

Westgate-California Co., canners of Breast-O'-Chicken tuna, last month were completing the move to the new office and plant site in San Diego, at 1995 Bay Front.

The move makes a physical separation of Westgate from National Steel & Shipbuilding Co., its former allied firm. The corporate combination of National Steel and Westgate was broken up some months ago when the shipyard was acquired by a new combination of owners.

Westgate's new location is adjacent to the National Marine Terminal fueling dock, and the transfer of the offices and cannery will give Westgate a homesite covering several acres, and fully integrated, with receiving and fueling docks and cannery on the same premises.

The new cannery will occupy buildings formerly tenanted by Van Camp Sea Food Co., which last year moved its San Diego operations to Terminal Island.

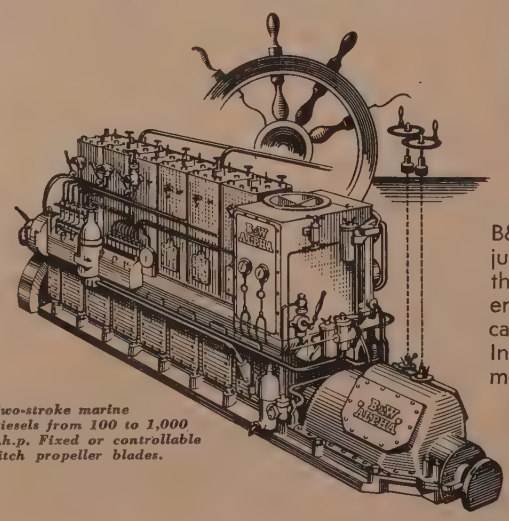
E. H. Clark Co., S.F., Adds to Fish Lines

E. H. Clark Co., San Francisco, has been appointed a direct sales representative for American Tuna Canning Co., Inc., Terminal Island, Calif., selling buyers labels only, according to E. H. Clark.

In addition to this line, E. H. Clark Co. has been appointed a direct sales representative for Whiz Fish Products Co., Seattle, for its canned salmon; and for Barbey Packing Corporation, Astoria, for its private label canned Columbia River Chinook, Cohoe and Blueback salmon.

TRAWLERS • TUGS • COASTERS . . .

FOR FISHING BOATS



Two-stroke marine Diesels from 100 to 1,000 b.h.p. Fixed or controllable pitch propeller blades.

B&W Alpha

B&W ALPHA Diesels carry their own built-in maintenance; just a routine trip down to check fuel and lubrication, and the rest of the time every man on board can be usefully employed in the business of getting there, making the catch, and getting home again.
Install a B&W ALPHA Diesel this time . . . and get more time for the business of making money.

BURMEISTER & WAIN AMERICAN CORPORATION

Main office and plant: Mystic, Connecticut.
New York office: 17 Battery Place, New York 4, N.Y.

LINES and LEADERS

Apex Marine, Snow-Nabstedt's Distributor, in New Location

Apex Marine & Equipment, Inc., Seattle, newly appointed Pacific Northwest distributor of the Snow-Nabstedt Corporation, Connecticut manufacturer of marine and industrial gears and transmissions, has just moved into a new building at Seattle's Fishermen's Terminal. The address is 4001 Twenty-first Ave., West, Seattle 99.

As part of S-N's new aggressive sales organization, Apex Marine will operate under the regional representative, Arthur H. Nelson, on the sale of marine reverse and reduction gears.

An increased inventory of gears and parts are being maintained by Apex to meet the growing demand of the marine trade. It is expected that most marine gear models with popular reduction ratios will be stocked in Seattle at all times. These various models are also adaptable to a wide variety of engines in their horsepower range.

The Apex Marine & Equipment, Inc., will have the largest stock of marine parts in the Pacific northwest. It is the most complete inventory of gear parts stocked in the area, and will be backed by factory trained personnel.

As the result of this association with Apex Marine, Snow-Nabstedt will gain greater acceptance in the commercial fishing and work boat fields. It is also acknowledged that an increasing demand for more complete parts and service will be assured.

"We are fortunate to have such a fine company representing us in the booming Pacific northwest," stated A. T. Nabstedt, Jr., "Particularly a company which is aggressive, and has the personnel who are so well grounded in the marine engine and gear business. We are sure that our many friends in the area will take advantage soon to visit Apex, and inspect their Snow-Nabstedt parts and gear inventory."

Bendix Marine Names Three New Pacific Distributors

Appointment of two Bendix Marine distributors in Northern California and a distributor for British Columbia is announced by Walter P. Rhea, manager of the Marine Department of Bendix Aviation Corporation, North Hollywood, Calif.

Covering the San Francisco Bay and Peninsula and Northern California territory is Kleer-Tronics, Inc., 1933 Ocean Ave., San Francisco. H. A. Bleile, Jr., is general manager of the firm, which is also distributor for industrial communications and residential sound systems.

For the lower Sacramento and San Joaquin River area, covering the territory from Vallejo to Stockton, Clyde B. Kirlin, Inc., of Walnut Creek has been appointed to distribute Bendix Marine equipment.

Representing Bendix Marine in the province of British Columbia, Canada, Aviation Electric Pacific, Ltd., at Vancouver, B. C. has been appointed distributor, with a complete stock of products and service parts for the entire Bendix line. Robert Basham, long associated with Bendix Marine in Vancouver, has joined the firm.

Clyde C. Williams Joins Graymarine Headquarters Staff

P. C. Chamberlain, president of Gray Marine Motor Co., announces that Clyde C. Williams, formerly vice president of Chrysler Corporation Marine and Industrial Engine Division, has joined the Gray Marine organization as assistant to the president. Mr. Williams, who has had exceptionally broad marine engine experience, has served several terms on the board of directors of the National Association of Engine and Boat Manufacturers, and is one of the best-known executives in the industry.

Vilter Introduces Air-Defrost Packaged Blast Freezers

Vilter Manufacturing Co., Milwaukee, manufacturer of commercial refrigeration and air conditioning equipment has announced the introduction of a line of air defrost blast freezers for such low temperature applications as fish freezers and storage rooms.

Air can be distributed into the cold room through duct work with directional flow or induction type outlets or it can be distributed through a perforated false ceiling.

Other features include liberal fin coil surface and simplified, rapid defrosting. Since the coils can be so easily defrosted, more efficient heat transfer is possible and compressor operating time is held to a minimum.

Rogge Commission Co. Moves

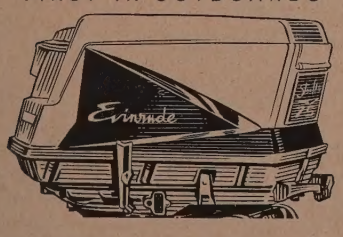
Rogge Commission Co., Seattle firm which long has specialized in supplying salmon cannery and marine businesses with fruit and produce, moved in June to new and modern quarters at 1526 Occidental Ave., Seattle 4.

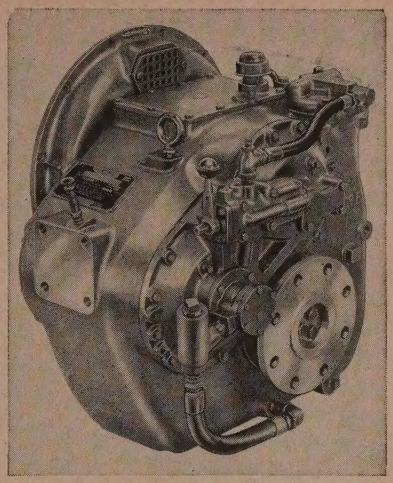
75hp
for boating's toughest jobs

The Evinrude Starflite II! Mighty power for a wide range of waterfront duties and commercial boating jobs. Smooth, quiet, tireless performer. Its V-4, 89 cu. in. engine develops 75 hp at 4500 rpm. You get outboarding's finest features: electric starting, automatic choke, sea-going magneto ignition, rugged Jetstream Drive, two-way shock absorbers. Lowest cost per hp in history!

Evinrude Motors, 4143 N. 27th St., Milwaukee 16, Wis.
A Division of Outboard Marine Corporation
In Canada: Mfd. by Evinrude Motors, Peterborough

EVINRUDE
FIRST IN OUTBOARDS





New Twin Disc MG-512 Marine Gear

It's the job-proven MG-511 redesigned for bigger engines

In 1955 Twin Disc introduced the MG-511 Reverse and Reduction Gear—a unit that has since proven itself the finest marine gear in the 240 horsepower class. Now comes the MG-512 Reverse and Reduction Gear—a newly redesigned version of the MG-511 for engines producing *up to 300 hp at 1800 rpm.*

Here's why the MG-512 offers a new high in strength and serviceability:

- Satin-smooth ONE SECOND shift—smoothest shift of any gear made.
- Cushioned drive — torque is transmitted through a *double* row of rubber blocks in the driving ring to effectively compensate for nominal misalignment.
- Compact design — five helical gears are straddle-mounted on short rigid shafts . . . overall length is only 17⅞".
- Leakproof seal — double countershaft prevents oil leakage out or bilge leakage in.
- Mechanical come-home feature — permits forward rotation even if hydraulic system is rendered inoperable.

This new Twin Disc MG-512 Marine Gear is available in 2:1, 3:1, 4.15:1 and 4.4:1 reduction ratios. Write for complete details.

TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES

TWIN DISC
Marine Gears

TWIN DISC CLUTCH COMPANY
RACINE, WISCONSIN

NET RESULTS

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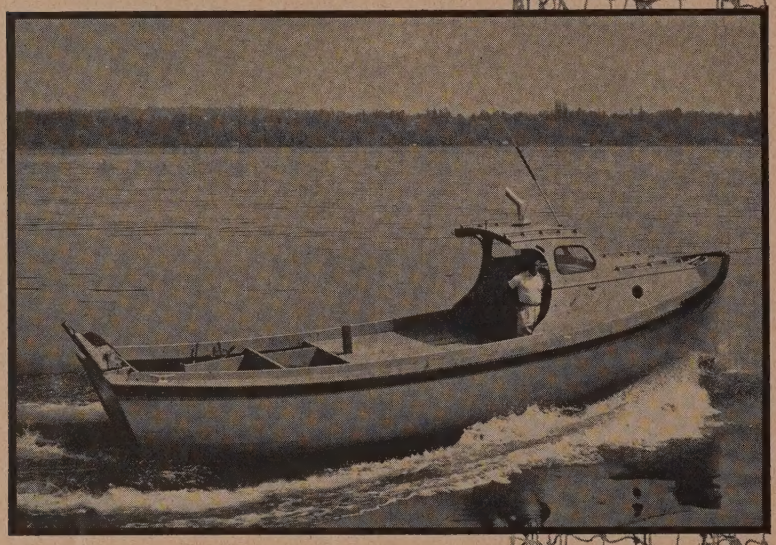
M-P propellers . . .



on twenty-eight new

32′ GILL NETTERS!

Three years in development, and now the new Bryant Super Highliner is ready for commercial fishermen . . . the latest advance in skeg-type boats without tunnel sterns, from Bryant's Marina, Seattle. Everything from the paint to the bilge pumps was carefully selected and tested for performance, durability, and serviceability. And, of course, Michigan M-P Propellers are standard equipment . . . "Machined-Pitch" means total accuracy, assures perfect balance and indexing. The result is smooth performance, minimum cavitation, and full power at greater than average speeds. The perfect all-purpose prop, in all sizes through 72" diameter, available in choice of Michigan's famous alloys. Michigan is part of the picture . . . that's one of the reasons why veteran skippers who tested the new Bryants can report, "excellent performance." And that's why you should always specify MICHIGAN PROPELLERS!

REPAIR SERVICE Fast, sure, low cost . . . always use Michigan's nationwide prop repair service.

michigan wheel co.

GRAND RAPIDS 2, MICHIGAN

045

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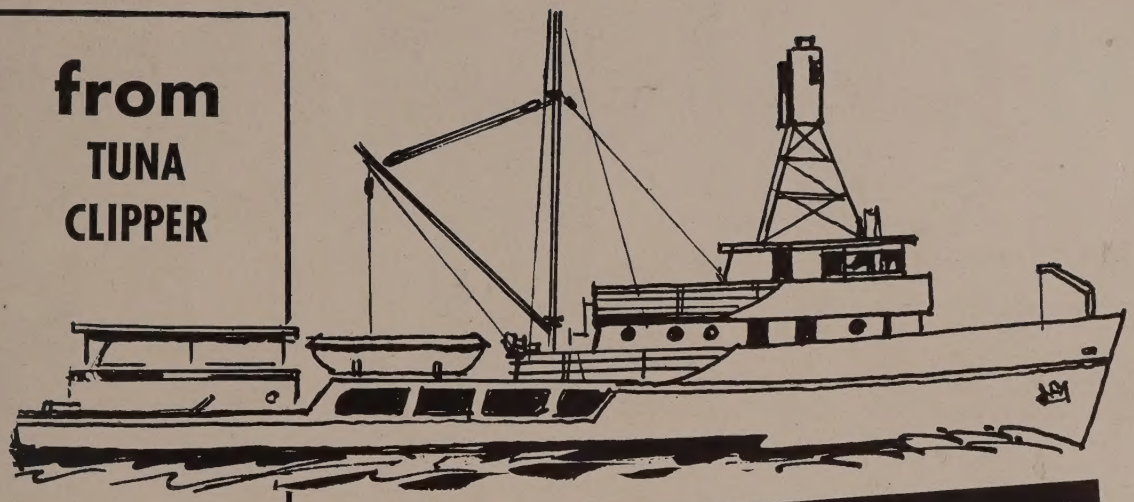

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are designed and built by experienced purse seine fishermen

check the dollar & cents advantages which our "know-how" has over other yards

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Boat Builders Since 1896

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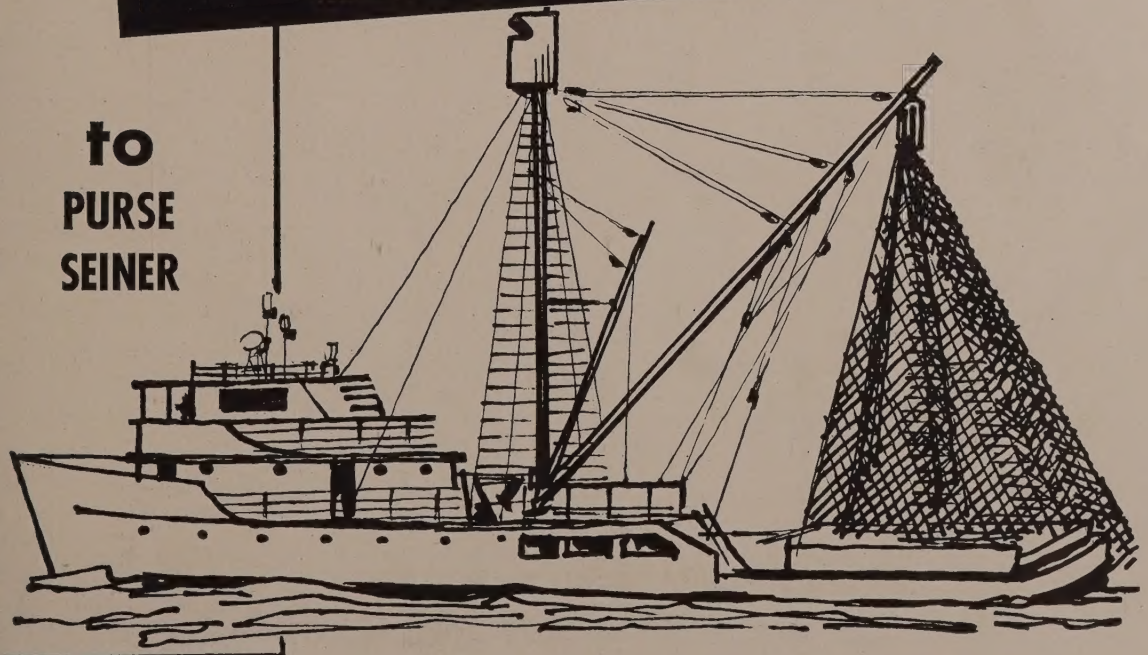
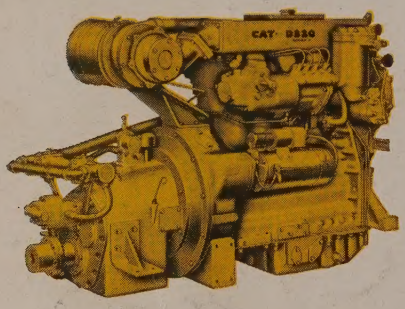
to
PURSE
SEINER

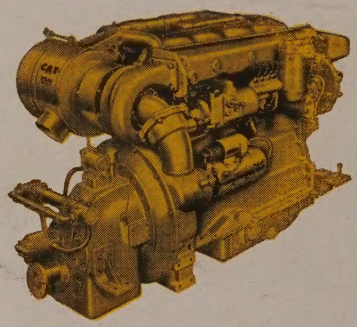


NEW FROM CATERPILLAR

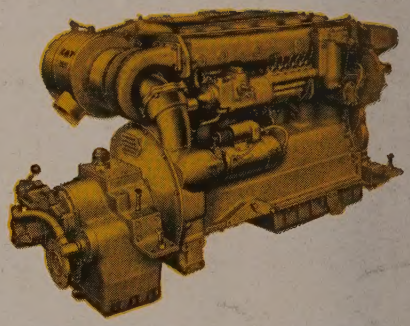
3 CLEAN, QUIET, COMPACT MARINE DIESELS



D320—offers up to 130 certified HP @ 2400 RPM.



D330—gives up to 180 certified HP. Air, electric or hydraulic starting is available for all of these models.



D333—offered in many configurations with certified maximum HP output of 270 @ 2200 RPM with salt water cooling.

You don't have to provide a lot of room or sacrifice weight to enjoy the advantages of full-stroke, 4-cycle diesel engines. Not any more. Now you can get this performance, low operating costs and dependability in three new compact, lightweight, powerful Caterpillar Diesel Engines.

These engines are clean and quiet because they're turbocharged. This makes them more powerful, yet more sparing on fuel per unit of horsepower. You can drive a battery-charging generator from the main engine while in port without worrying about noise or noxious exhaust fumes. Your exhaust will be clean at any condition of load or speed.

In addition, you don't need three hands or an engineer's degree to care for these new Cat Diesels since there are no operating adjustments. Normal maintenance is quick, simple, and seldom needed.

Your boat will be fast and responsive with these engines. You'll overtake gasoline and other diesel-powered boats whose advertised horsepower is higher than your own. The horsepower you buy when you buy Caterpillar is certified on a formal document.

Caterpillar's exclusive 4-cycle precombustion chamber design means you'll be passing a lot of fuel stops, too. And turbocharging and aftercooling wring even more power from every drop of fuel. Premium fuels are not necessary. No. 2 furnace oil burns readily with no harmful effects and without carboning, even during long periods of idling. You get fast response, with no cylinder lubricant washdown, after trolling.

You can get Caterpillar warranted and serviced marine gears for these new engines in ratios from 1:1 to 4:1. Other gears can be furnished on order.

You can get service for these new engines from Caterpillar Dealers located throughout the free world. See your dealer now for complete data on these newest Cat Diesels. He can save you money on your next boat or when you repower.

MARINE POWER BY CATERPILLAR

CATERPILLAR

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